

WILD HORSES AND BURROS

HEARING
BEFORE A
SUBCOMMITTEE OF THE
COMMITTEE ON APPROPRIATIONS
UNITED STATES SENATE
ONE HUNDRED SECOND CONGRESS
FIRST SESSION
SPECIAL HEARING

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WILD HORSES AND BURROS

THURSDAY, JUNE 20, 1991

U.S. SENATE,
SUBCOMMITTEE ON INTERIOR AND RELATED AGENCIES,
COMMITTEE ON APPROPRIATIONS,
Washington, DC.

The subcommittee met at 9:33 a.m., in room SD-138, Dirksen Senate Office Building, Hon. Harry M. Reid presiding.

Present: Senators Reid, Nickles, and Domenici.

Also present: Senator Bryan.

NONDEPARTMENTAL WITNESSES

OPENING STATEMENT OF SENATOR REID

Senator REID. The committee will come to order.

Good morning and welcome to this morning's hearing on wild horses and burros.

We are here today to examine the current Federal policy, which has a colorful, romantic past, but a disturbing present and cloudy future. Many of the current features of this program are an outright failure and a disaster.

I say that wild horses have a colorful and romantic past because most people think of the American West as a place where cowboys still ride the range, where there remain wide-open spaces and remote areas, where wild horses and burros still take refuge from threat of man and overdevelopment.

While this is true to some extent, there is a dark and ominous side to this issue that must be examined in the interest of protecting the future of our range resources, the interests of those who reside and depend on the same range for their way of life, and finally, for the benefit of the wild horses and burros themselves.

Let me briefly review the history of this program so that we may better understand its evolution.

The Wild Horse and Burro Act became law in 1971, 20 years ago. Prior to this, wild horses were the sole responsibility of the States that had them within their borders. At the time of the passage of the Wild Horse and Burro Act, there were some 35,000 wild horses and burros in the United States. This compares with really an unknown figure, but certainly well over 50,000 in the United States today.

Along with the great increases in numbers, the wild horse program established in 1971 has branched into many satellite programs, each with its own specific purpose and problems.

We have established the adoption program to deal with excessive numbers of horses, and today we're adopting horses out of a number of centers designed for this purpose, but with a dismal record of success. Even though 65 percent of the horses on our ranges are adoptable, far less are currently being adopted at the facilities designed for that purpose.

A few years ago, Congress supported the sanctuary program to take pressure off current herd levels by providing a home for older, nonadoptable horses. That program has, according to many neutral observers, been a success. It is even saving the Government money. Why then does the BLM want to close these money-saving sanctuaries? That is really the question. The question will also be, of course, whether these sanctuaries have been a success.

The wild horse prison program was designed to offer an opportunity for prisoners to get involved in a program that breaks or tames horses, preparing them for adoption. Now, the BLM is contemplating closing two or more of these prison programs.

The General Accounting Office recently released a report on the number of horses that were on the range today. Based on that report, we can assume that there are about 35,000 of these horses in Nevada—and remember there were only 35,000 in the entire country 20 years ago—and there's at least an additional 15,000 spread around in other States. There are people present here today that will suggest that there are more than 50,000 horses in Nevada alone and as many as 25,000 elsewhere.

Why is it that we can count deer and elk herds and other wildlife with a degree of certainty and accuracy, but we have no accurate accounting procedures for counting wild horses and burros.

In the area of forage monitoring and predicting how many horses an area of range can support, I find an equally disturbing amount of deviation between various reports. I suggest again that testimony here today will further substantiate that confusion.

Some say that future herd levels will be controlled through selective breeding, sterilization, and birth control implant programs, but to date I have heard no consensus of programs to be employed in this regard. And most of you present today are aware of the disastrous results of the Minnesota program and what nonresults it yielded.

It is against this backdrop of questions, problems and deficiencies that I've called this hearing. I cannot assert strongly enough the urgency of this issue. I hope, as a result of this congressional hearing, we may better understand this program and what we can do to make improvements in the program.

At this time I'd like to call upon my colleague from the State of Nevada, someone who has been intimately connected with this problem, first as the chief legal officer of the State of Nevada, the attorney general, and then of course, as Governor of the State, and now as a U.S. Senator. Senator Bryan.

OPENING STATEMENT OF SENATOR BRYAN

Senator BRYAN. Mr. Chairman, I thank you very much, and let me preface my comment by congratulating you for holding this timely hearing to further the cause of effective management. As

you pointed out, there is a great difference of opinion as to how we ought to approach this issue.

You correctly point out that we in Nevada are very proud of our heritage, a heritage in which the horse has been an integral part of our history and development. There was a time when the horse was as important to the way of life for those of us in the West and of our basic survival as are the instruments of modern industry are to us today. Our modern record of stewardship in this area, however, is sadly deficient.

Appropriately you point out, Mr. Chairman, that the Wild Horse and Burro Act of 1971 was both a symbolic and an important step in dealing with the sensitive issues of managing the horse and burro population. But while the intentions of this act were good, its implementation has been seriously lacking. Today, 20 years later most of the problems this legislation was intended to alleviate have only gotten worse. The effective management of wild horses and burros is necessarily not only for the benefit and protection of these animals, but also to protect the public lands from the environmental consequences caused by their overpopulation.

The problems of herd overpopulation in Nevada, the most arid State in which great parts of our State receive less than 4 inches of precipitation annually, have been greatly complicated by a protracted drought which now emerges into its fifth year. Without natural competitors, the number of horses and burros will continue to grow far beyond the capability of the resource base to support them, and there are tragic circumstances occurring in our own State which I believe will be pointed out during the course of your hearing this morning, Mr. Chairman, in which the horses are dying. They are suffering. This simply makes no sense in terms of effective management.

More than a decade ago, as attorney general, I was involved in litigation as to the management and control of our wild horse and burro population in Nevada. Again, Mr. Chairman, you have placed I think the focus correctly. Then, as now, seemingly we were unable to count the number of wild horses and burros. The estimates varied widely depending upon the interest group and the point of view expressed by that interest group.

I must say that given the level of funding for this program today we have no real effective management of these wild horses, and the lack of an effective adoption program has made it necessary to hold these animals for extended periods of time at great expense to the taxpayer and to the detriment of other priorities of their management.

So, as you point out, correct population data is vital for planning an effective management program, and we in Nevada are particularly sensitive to that more than—well, I would say, put in another context, that we have more wild horses in Nevada than all the rest of the States combined, and yet with all of that population, we receive about 18 percent of the BLM funding for this program when we have 68 percent of the entire wild horse population. It seems to me the priorities need to be refocused.

Finally, I would point out that overall we need to implement programs that will address both the ecological needs of our rangelands, which are severely impacted this year, as you know. I know,

Mr. Chairman, you have been out there and you have seen the conditions, and they are not good. I must say they are not likely to improve unless we get a break in the weather. And it is important for those who are advocates of the health and welfare and the protection of wild horses and burros to understand that under the present management system there is a great deal of suffering that these animals endure. We must also focus on balancing the multiple uses of public lands.

Let me just conclude by congratulating you, Mr. Chairman, for bringing into focus this problem, and hopefully as a consequence of this hearing and the followup actions that you deem appropriate, we can do a better job in managing this resource both for the protection of the public lands that are involved and the animals that will be affected as well. And I thank you.

Senator REID. Thank you, Senator Bryan.

PANEL 1—MANAGEMENT PROGRAMS

STATEMENTS OF:

DAVE CATOORE, COWBOY AND CONTRACTOR OF WILD HORSE GATHERS IN THE WEST, NEPHI, UT

DAYTON HYDE, PRESIDENT, THE INSTITUTE OF RANGE AND THE AMERICAN MUSTANG, PIERRE, SD

FRED WYATT, MANAGER, PALOMINO VALLEY WILD HORSE AND BURRO PLACEMENT CENTER, BUREAU OF LAND MANAGEMENT, SPARKS, NV

INTRODUCTION OF PANEL 1

Senator REID. Our first panel of witnesses today will consist of Fred Wyatt, the manager of the Palomino Valley Wild Horse and Burro Placement Center run by the Bureau of Land Management. He is from Sparks, NV. Dayton Hyde, the president of the Institute of Range and the American Mustang, Pierre, SD. Dave Catoore, cowboy and contractor of wild horse gathers in the West from Nephi, UT. Would the three of you please come forward? Gentlemen, please be seated, be relaxed.

For everyone here that is a witness, we are going to have a little light up here that will limit your prepared testimony or your opening statement, whatever the case might be, to 5 minutes. There will be a green light, and there will be a yellow light when you have 1 minute, and a red light when your time is up. Then we will leave the remaining time for questions.

STATEMENT OF DAVE CATOORE

We would first call upon you, Mr. Catoore, to give us your statement.

Mr. CATOORE. You have my statement there, Senator, and I am ready to answer any questions that you might have there.

[The statement follows:]

STATEMENT OF DAVE CATTOOR

Good morning. My name is Dave Cattoor and I live in Nephi, UT. I appreciate the opportunity to come here today to discuss the present situation with the wild horses in Nevada and other Western States.

I have been contracting with the BLM since 1973 to gather and haul wild horses, mainly in Nevada, but I have also done work in Montana, New Mexico, Wyoming, and Colorado.

I currently am in the completion stages of a contract to gather and haul wild horses on the Nellis range in Tonopah, NV. This contract calls for removing a total of 2,400 head, and we currently have removed 2,000.

I look forward to discussing with the subcommittee certain facts about the percentages we remove, those that are returned, and any other relevant information about this process.

STATEMENT OF DAYTON HYDE

Senator REID. Mr. Hyde, would you give us your statement?

Mr. HYDE. Mr. Chairman, Senator Reid, thank you for inviting me here.

I am an Oregon rancher and several years ago, I got a little concerned over the numbers of wild horses that were being held in Government sanctioned feedlots. My solution was to leave my ranch to my family and move out to South Dakota where there was lots of grass and establish a sanctuary system of some 50,000 acres.

This to my mind has been very, very successful. It's a home of happy horses. These wild horses which were having troubles existing in the feedlots are now in great shape. The public has a unique place in America to come and see its wild horses, to photograph them, and enjoy this great natural heritage.

What I hoped to do was raise enough money to make these horses self-sufficient by establishing a tourist industry around the horses so the horses could pay their own way. In large measure, we have been able to do this, but we are not at the end of this first 3-year period able to totally take off on our own. There have been problems of recessions and wars, but it is coming along very well.

Recently we were able to add one of the most beautiful pieces of America to this system, a place which gives us access now to our original ranges.

We are getting hundreds and hundreds of people every year. We have tripled the amount of people who have endured the rough roads and the poor maps to get in and see these animals. About 80 percent of the people who come say that this is one of the great trips of their life.

When I took over this program, I promised the BLM that I would establish a system where we got good publicity for the wild horses instead of the disastrous publicity that existed before. We have had things like the "20/20" program which won an Emmy Award. We have had all sorts of national publicity favorable to what we are doing. We have had articles in virtually every major newspaper in the country, all favorable to this solution for the wild horse.

I am very pleased with what we have done. We haven't quite gotten to the goal we wanted to get to, but that has been not entirely of my making. We had to do a lot of learning on the way because there was no textbook that we could read on the running of wild horses. A lot of the time that I could have spent out fundraising was spent solving the problems of getting the horses in the first place. They did not come in as scheduled. The clock started ticking immediately on signing a memo of understanding with the BLM.

Yet, the horses did not come in for a long time. We have terrible bouts with raising the money to become self-sufficient.

PREPARED STATEMENT

But things are going very, very well now. We have enlarged our board of directors with some superb people who have told me that they are really going to dig in and help raise the funds. We have raised approximately \$375,000 already from private funding, and that is the money that has gone to purchase the land. The Federal money that comes in has pretty much gone for maintaining the horses and helping to buy feed. We are really happy with the way it is going and we want the chance to continue on for another go-round. I think that would be successful.

STATEMENT OF FRED WYATT

Senator REID. Mr. Wyatt, it is my understanding that you have no prepared statement.

Mr. WYATT. No; I have a couple of sentences that I would like to read.

PREPARED STATEMENT

I am Fred Wyatt, manager of the Palomino Valley Wild Horse and Placement Center 20 miles north of the Sparks/Reno area. I appreciate the opportunity to be here. Director Cy Jamison will present the views of the administration on the Bureau's wild horse and burro program. I will be glad to answer any technical questions you may have regarding the Palomino Valley processing facility.

[The statement follows:]

STATEMENT OF FRED WYATT

I am Fred Wyatt, Manager of the Palomino Wild Horse and Placement Center of the Bureau of Land Management in Sparks, Nevada. I appreciate the opportunity to be here today. Director Cy Jamison will present the views of the Administration on the Bureau's wild horse and burro program. I will be glad to answer any technical questions you may have regarding the Palomino Valley operations.

PALOMINO VALLEY CENTER

Senator REID. Gentlemen, I recognize that the three of you, unlike many witnesses who appear before us, didn't have long prepared statements to give to us, but the three of you know more about this horse business than most anybody there is. So, we are depending a lot on each of you to give us information so that we can better get a handle on this program that simply is not working.

With that brief statement, I would like to begin by asking some questions of Mr. Wyatt.

Tell me about this Palomino Valley Center and how long it has been in operation.

Mr. WYATT. Senator, the Bureau purchased 148 acres there in 1977. It was a facility that was in operation at that time. Some livestock had been fed in that particular site for years.

Senator REID. Where is this located?

Mr. WYATT. It's 22 miles north of Sparks/Reno on the Pyramid Lake Highway, State Highway 465.

The reason for the purchase was that we needed a central place to confine wild horses that were caught on the range.

Senator REID. Are you an employee of the Bureau of Land Management then?

Mr. WYATT. Yes; I am.

Senator REID. Prior to this development of this center, what did you do?

Mr. WYATT. My employment with the Bureau started in 1961. Prior to moving to the Palomino Valley facility in 1985, I did a 2-year assignment here on the wild horse staff in Washington, DC.

Senator REID. So, you have worked for the Bureau of Land Management for many years, almost 30 years.

Mr. WYATT. Right.

Senator REID. How many horses do you now have at the center?

Mr. WYATT. About 1,155.

Senator REID. What percent of these horses are from Nevada?

Mr. WYATT. One hundred percent.

Senator REID. Since the center started, how many horses have been adopted out directly from the Palomino Valley facility?

Mr. WYATT. Specifically, Senator, I will have to go back to—we average about 150 a year. So, we started adopting horses there in around 1980. So, 11 years times 150 per year.

Senator REID. So, a little over 1,000 horses. That is not many horses, is it?

Mr. WYATT. No.

Senator REID. That, of course, is one of the big concerns we have. During the period that the center has been in operation, you have had thousands of horses that have come and gone out of that lot. Give us an idea of how long horses spend in the corral there.

Mr. WYATT. Senator, our horses that we send primarily to the adoption program as they come off the range, when we get them processed are the 1 through 4 year olds. they average spending about 151 days until they are captured and transported to the Palomino Valley facility and ultimately are adopted.

Senator REID. So, those horses that are not adopted directly from this center, where do they go?

Mr. WYATT. The biggest majority of them come east of the Mississippi River which is under the jurisdiction of our office here in Alexandria.

Senator REID. How much does it cost to keep a horse in that facility per day?

Mr. WYATT. Our feed cost alone is about \$1.50 per day.

Senator REID. But what other costs are involved?

Mr. WYATT. Now, when we break it down, the hay cost is about one-third, our manpower/workman cost is one-third, and contracting services for veterinarians and all. Last year, in fiscal year 1990, it ran \$5.90 per horse per day.

Senator REID. That's \$5.90 per day per horse.

Mr. Hyde, how much does it cost you to keep a horse in the sanctuary?

Mr. HYDE. We are getting from the Government I think about \$1.34 per head per day, and it probably costs us \$1.40. Fortunately,

we have not had any veterinary expenses nor hoof trimming. Those horses take care of themselves.

Senator REID. But, Mr. Hyde, you heard this. It costs \$6 a day to keep a horse in facility. Right? Didn't you just hear that?

Mr. HYDE. Yes.

Senator REID. For \$2, you would be making money on the deal. Is that right?

Mr. HYDE. Yes.

Senator REID. Maybe you can tell me, Mr. Wyatt. Why wouldn't we want to put them all on these sanctuaries?

Mr. WYATT. There's a lot of cost, Senator, that goes into this process of these horses. In other words, before we send them to Mr. Hyde—say, the horses are 10 and above—all those horses are gelded. We put the veterinary cost in gelding. They have all gone through a series of inoculations, and they all have been freeze marked. So, there is a lot of preparation cost going into them before he gets them.

Senator REID. Let's say that a horse comes off the Nellis Range into your facility and you are going to send him to South Dakota. How long would it take you to get him prepared to head for South Dakota?

Mr. WYATT. If it's a male, it would take about 2 months to get him there by the time we geld him and he heals up and things.

Senator REID. A female?

Mr. WYATT. A female, a lesser time, 6 weeks, providing she is in a fleshy enough condition to withstand the rigor of the truck ride.

Senator REID. What is the average length of stay for wild horses brought into Palomino Valley?

Mr. WYATT. We have to break that down, Senator. The younger horses, about 150 days. Then those horses that are going to the prison system, that we send on to the prison system, which are 5 through 9 year olds, those are averaging 361 days in the prison system.

Senator REID. How long would be your average stay, Mr. Hyde?

Mr. HYDE. I hope the horses that are with me will stay forever and die of old age on the range. We have not had the deaths that we anticipated. The BLM thought that 10 percent would be a good loss, and we are not getting that at all. Inevitably, some of these horses are going to die, but they are in such great condition that their life is going on.

Senator REID. Mr. Catoore, it is my understanding that you are currently conducting capture of wild horses at Nellis Air Force Base. Is that right?

Mr. CATOORE. That's right, yes.

Senator REID. First of all, Mr. Catoore, you're a cowboy. Is that a fair—

Mr. CATOORE. Right, I guess.

Senator REID. Tell me why you qualify as a cowboy?

Mr. CATOORE. Well, I spent most of my life rodeoing and gathering wild horses. So, I guess that's just the way it is. That's all I've ever done.

Senator REID. You have been contracting with the BLM for almost 20 years, is that not right, to haul wild horses and gather wild horses?

Mr. CATOORE. Right.

Senator REID. And you have done this mostly in Nevada. Is that true?

Mr. CATOORE. Most of it has been in Nevada. I have been in several other States for Indian departments and BLM, Forest Service, but most of it has been in Nevada.

Senator REID. You have done gatherings in New Mexico?

Mr. CATOORE. Right.

Senator REID. Wyoming, Colorado, Montana. Isn't that right?

Mr. CATOORE. Right, for the BLM and Forest Service and the Indian department.

Senator REID. You have a contract now on the Nellis range which calls for the removing of 2,400 horses. Is that right?

Mr. CATOORE. Right.

Senator REID. How far along are you?

Mr. CATOORE. Last night when I left about 4, we was right up at 2,000.

Senator REID. Have they been easy to gather?

Mr. CATOORE. The horses are totally devastated. They will run over you, right over the top of you to try to get a drink.

Senator REID. What kind of shape are they in as far as their general health is concerned.

Mr. CATOORE. The horses right now are in pretty good shape. The Air Force base is hauling about 25,000 gallons of water daily. They are doing everything they can to keep them alive.

There is nothing at all for them to eat. For 25 miles from where we are trapping in a south direction, the range is totally devastated. The horses have to go beyond that to find anything to eat.

Senator REID. Now, Mr. Catoore, this range has nothing competing with it. There are no cattle, no sheep. Is that right?

Mr. CATOORE. There's no cattle at all. They have been moved off a longtime ago. In 1985, there was some deer and antelope there. At this time they're gone.

Senator REID. There's nothing for them to eat. Is that right?

Mr. CATOORE. There is no water and no feed.

Senator REID. Mr. Catoore, you have said you have been a cowboy for all your adult life. Is that right?

Mr. CATOORE. Right.

Senator REID. I am curious if this land around where you are gathering for 25 miles were devastated by sheep or cattle, what problems would we face?

Mr. CATOORE. The BLM would totally put you out of business.

Senator REID. Try to describe the land where these horses are trying to survive.

Mr. CATOORE. Actually this Nellis range is a hellhole for horses. There's no water. The last 5 years it has went downhill. The horses have increased to a terrific number. They do frequent bombing runs through this thing daily, and they have got to fight all day long for water. They have to got walk through the night and the next day to find anything to eat. It's totally devastated. The whole country is.

Senator REID. I have been told that you're not removing all the horses that you capture and you're turning back some of the horses. Is that right? What are you turning back?

Mr. CATOORE. To start out with, for 3 weeks we turned back everything that was 9, 10 years, stud horses, mares. We turned back pregnant mares and mares that had baby colts.

Senator REID. How long will those horses live?

Mr. CATOORE. The ones we were turning back unless something drastic is done to them, 50 percent of them will die within the next 2 or 3 months.

Senator REID. How do you gather these horses?

Mr. CATOORE. The ones we're gathering now we set corrals around waterholes, and we haul water to get enough water in there for them to come in. Gathering these horses is no problem. They come in in vast numbers, 400 or 500 at a time. They will totally push your panels apart if you're not standing there trying to keep them from pushing them down.

Senator REID. You ship them by truck, do you?

Mr. CATOORE. We ship them by gooseneck trailers down to our holding corrals which is from the current trap we're using is 18 miles, and then we ship them by truck to Palomino Valley.

Senator REID. I'm sorry. All these horses you're capturing are going to Palomino Valley?

Mr. CATOORE. Right.

Senator REID. Why are you not collecting these old horses and the pregnant horses?

Mr. CATOORE. They're termed unadoptable. There's the backlog of horses in the sanctuaries, and at Palomino Valley there's just no place to go with them.

Senator REID. You have heard the estimates in 1971 in Nevada there were—I'm sorry. When this program started in 1971, we were told that all over the country there was about 35,000, 30,000 horses. Do you have any idea how many are in Nevada now?

Mr. CATOORE. If there was 35,000 at that time, there's 45,000 now.

Senator REID. We're losing the battle of numbers. Is that right?

Mr. CATOORE. The way the current situation is, there is no way to keep up with it.

Senator REID. Do you have any idea in this Nellis range where you have been working now—you read in the paper there were 6,000 horses there initially. How many do you think are there?

Mr. CATOORE. With the colt crop that we're seeing, the terrific colt crop that's there this year, there's got to be 8,000 plus.

Senator REID. Just on the Nellis range.

Mr. CATOORE. Right. This is counting this year's colts.

Senator REID. Why can't we seem to get a more accurate count on how many horses we have?

Mr. CATOORE. The count on that range is really restricted. I don't think anybody has ever got a count. One day they might let you fly one area and count, and it might be the next week before you can count the other area. Some areas you can't go into at all.

Senator REID. Mr. Catoore, we have had over the years all kinds of experts with Ph.D.'s and all these degrees telling us about the problems with the wild horses and burros. Let's talk about somebody who has a Ph.D. in experience that works with those horses, namely you. Give me an idea what your thoughts are as to what

is wrong with the wild horse program and how it could be made more cost effective.

Mr. CATOORE. Right now the cost that is going into gathering these horses right on the Nellis range, there's no way to get a handle to get any control on them unless the law is implemented and the excess horses can be disposed of because of the vast numbers that we're talking about and vast die-off that could come within the next 2 or 3 months. They have tried to get sale bill through which would pay for the program, but if it don't go through to gather and hold these horses down to any numbers, the excess horses on the Nellis have to be taken care of because there is a vast number of huge stud horses that come in around the waterholes and just devastate everything. Two or three hundred stud horses that are 10, 12, 15 years old totally keep everything from getting to the water. They keep any wildlife from coming in. The fighting—it's just total chaos when you get that big number of stud horses. The mares on the Nellis are small numbers because they do die off. A mare that has a colt on her cannot sustain through the summers with the drought and the no feed.

Senator REID. Mr. Hyde, you have heard the description of Mr. Wyatt of the holding center in Palomino Valley. You have heard Mr. Catoore who is a horse gatherer. Tell us now about your sanctuary program as to why the BLM is not wanting to keep your program going.

Mr. HYDE. Well, I don't know why they aren't keeping it going just when we are getting started. I have to admit that we have not gone as far as we expected to or hoped to and have become totally self-sufficient in 3 years, but that was probably a goal and unreal figure on my part. I previously raised \$5 million for another project, and I thought it would be as easy as it was in the first case.

We have spent an awful lot of time learning. We didn't have the income we thought we were going to have because the horses simply didn't come in on time. We are playing catchup. We are in a position now where we ought to be. I had to do a lot of learning.

One of the failures on my part was that I didn't realize when there's a change in an administration, that the new people in BLM wouldn't know me from Adam and wouldn't realize just how hard I have worked on this. I did nothing to educate the BLM as to what we were doing and how well things were working out. We should have tours with Mr. Jamison and people coming out and seeing these animals on the land. We should have had participation from the Senators coming and seeing just how beautiful a project this is.

Senator REID. Mr. Hyde, still the figure that keeps rattling around in my mind is that it is costing us \$6 a horse per day at Palomino Valley, and you could do it for \$1.40 a day. Is that right?

Mr. HYDE. Yes; and we have unlimited range. We can get as big as anybody would like us to get.

Senator REID. How many horses do you have there now?

Mr. HYDE. We have about 1,850 now, but we could go to any number. There's unlimited land in South Dakota around us that can be either purchased or acquired on a lease option basis, and it is beautiful grazing land.

Senator REID. I have some more questions. I do not want to hog the hearing.

Senator Nickles, you were here. Please proceed.

Senator NICKLES. Mr. Chairman, I withhold any questions at this time. I do have an interest in this program. We happen to have a sanctuary in my State.

Senator REID. We sure know that.

Senator NICKLES. I am familiar with the program not working very well. I am certainly open to suggestions for making improvements. I know that you have a very vital interest, and I compliment you for that. I know Senator Domenici does as well. So, I look forward to working with you and other members of this committee to see if we cannot come up with some good solutions to a problem that has been here and evidently it has been growing from what I have heard.

Thank you.

Senator REID. I appreciate your interest.

Senator Domenici.

Senator DOMENICI. Mr. Chairman, the same for me. I want to inquire of the administration. As you know, our prisons are involved heavily, and they are in the process of closing one of them down. They have closed one and are in the process of closing a second. I guess I just do not understand where we are going with the program. I would like to find out from the administration where things are going to end up.

Senator REID. Mr. Domenici, I would like to come in here and be able to blame this on President Bush or Cy Jamison or somebody from the administration, but I think you summed it all up. I don't think we know where we are going, and I don't think we have for many years.

As indicated here—we have certainly a lot more testimony to gather here today, but here are three people who are on the firing line. Here's a man who has gathered tens of thousands of horses and we're making no headway. We have more horses now in Nevada than we had in the entire country when this program started. We have a man who has been intimately involved in one of the adoption centers, and then we have a man who is trying to get this sanctuary so that it is a success. I think we really do not know where we are going.

The reason I asked the question if sheep or cattle were causing the problem that horses caused, is because I don't know what would happen. The horses have ruined areas in Nevada. Is that a fair statement, Mr. Catoore?

Mr. CATOORE. They have totally destroyed the Nellis range.

Senator REID. Now, keep in mind the Nellis range for you, gentlemen, is not Las Vegas desert. It is a higher area. There are grassland areas in the test range. There are hills. There are many very nice areas. Is that not right, Mr. Catoore?

Mr. CATOORE. Just outside the fence on the north side is Stone Cabin Valley, there's a terrific lot of feed in the valley. In fact, years ago the ranchers told me there was a terrific cattle country on the Nellis before it was fenced.

Senator REID. So, we have to do something there.

Senator DOMENICI. Could I just make this point? Maybe I could ask, with your permission, the adoption gentlemen. Before I arrived, did the chairman ask you whether this program of adoption was meeting the expectation you had when you started and got involved?

When we started this, we figured the American people would be genuinely and enthusiastically interested in adopting, and that would be a very, very big safety valve for this program. Now, it may not be what we thought. There may be other things also. But could you describe it as you understand it and have experienced it?

Mr. WYATT. Well, as I experience throughout the year, we average adopting about 4,000 horses. That 4,000 figure has remained pretty constant over the last several years. What really doesn't work if we in Nevada catch, say, 4,000 to 6,000—that's normally about what we have been running. We can't get the adoption demand as great as the number of horses we are bringing in. So, it is not really I guess meeting my expectation from that standpoint.

Senator DOMENICI. Well, let me ask you. You say you cannot get the adoption demand up. You are doing 4,000. Are you suggesting that you have been asked to do more, but you can't find more people to adopt?

Mr. WYATT. We don't get involved too much in the adoption program in Nevada.

Senator DOMENICI. Wherever it is.

Mr. WYATT. Most of the adoptions are happening east of the Mississippi River, and so horses come in to Palomino Valley. We prepare them for the adoption program and send them on east.

Senator DOMENICI. But is the demand less than you expected?

Mr. WYATT. Yes.

Senator DOMENICI. By how much?

Mr. WYATT. Well, Senator, that would just be a guess, but it is considerably less than we expected a few years ago.

Senator DOMENICI. Thank you, Mr. Chairman.

Senator REID. You bet.

Mr. Hyde, you still appear to be optimistic that you will be able to raise the money to enable you to assume the full financial responsibility for the sanctuary. The State of South Dakota and the South Dakota Community Foundation were partners with you in the BLM in a memorandum of understanding that established the sanctuary.

Mr. HYDE. Yes.

Senator REID. Are they agreeable to extending the memorandum and relationship for an additional period of time?

Mr. HYDE. The South Dakota Community Foundation, because of the increase in their own business, has pretty much dropped out of it, but I have had nothing but good reports from the Governor loving what we are doing and wish to continue.

One thing that we are doing for the adoption program is that people are coming and seeing how beautiful these wild horses can be when properly cared for, and we are getting an awful lot of people that come to us, see the horses, get excited and then go through the adoption process.

Senator REID. It is my understanding the majority of the wild horses are currently pastured on the Mustang Meadows Ranch

owned by a man by the name of Allen Day. What is your financial management arrangement with Mr. Day?

Mr. HYDE. Allen Day came in at a time when it was very critical for us to acquire land. He put together some investors, bought the land for us, and it's just the same as leasing pasture from my neighbors. We pay Allen Day so much per head per day to take care of the horses for us. He has the crew, the staff to do it with, and he has put together 35,000 acres. It would have been very difficult without his help to do this.

He has also spent an awful lot of money in changing that ranch from a cattle ranch to a horse ranch. There have been some great problems in proper utilization of feed in that horses don't like to graze in the lower valleys and will decimate the upper lands. So, he has had to completely redo his fencing.

Also, for almost 1 year, he had a ranch for which he paid \$1.25 million and had no livestock on it and no income because the horses simply weren't available to put there at that time.

So, every month we pay Mr. Day a pasture fee to keep those horses down there, and they are inspected frequently to make sure that he is doing a good job.

We take for our administration 15 cents out of the BLM money, the \$1.34 per head per day, or \$1.19 per head per day. We take 15 cents out of that for our own administration, and really the money that we get from Mustang Meadows really keeps us going. It's the difference between going in the hole deeply or being able to make it.

Senator REID. I am going to save these questions for a later time. Perhaps I can't get the answer here. If anyone wants to volunteer, I will certainly take the answer. Still I am having difficulty here this morning understanding why this sanctuary program is going to be terminated. Can one of the three of you tell me why? We are talking about \$4 a day difference, \$4.50, \$4.80 a day per horse. That amounts to, if we take your 1,100 horses, close to \$2 million a year, thereabouts.

Thank you very much, gentlemen. I appreciate it very much. I know, Mr. Catoore, it is difficult for you to have come. We appreciate very much your being here.

PANEL 2—SCIENCE

STATEMENTS OF:

DR. PAUL TUELLER, PROFESSOR OF RANGE MANAGEMENT, UNIVERSITY OF NEVADA, RENO, NV

DR. JOHN GRANDY, WILDLIFE AND HABITAT PROTECTION, THE HUMANE SOCIETY, WASHINGTON, DC

ACCOMPANIED BY:

DR. JAY KIRKPATRICK, PROFESSOR OF BIOLOGY, EASTERN MONTANA COLLEGE, BILLINGS, MT

DR. WALT CONLEY, PROFESSOR OF BIOLOGY, NEW MEXICO STATE UNIVERSITY, LAS CRUCES, NM

INTRODUCTION OF PANEL 2

Senator REID. The next panel of witnesses will consist of Dr. Paul Tueller, professor of range management, University of Nevada at Reno; Dr. John Grandy, Humane Society, Washington, DC. Dr.

Grandy will be accompanied by Dr. Jay Kirkpatrick who is a professor of biology at Eastern Montana College in Billings. Dr. Walt Conley, professor of biology from the University of New Mexico in Las Cruces, NM.

We will first hear from you, Dr. Tueller.

STATEMENT OF DR. PAUL TUELLER

Dr. TUELLER. Thank you very much, Senator. I appreciate the opportunity to make a few comments.

My name is Paul Tueller. I have been a professor of range ecology at the University of Nevada Reno since 1962, and I have been a student of soils and vegetation of the Great Basin for over 34 years.

Let me start out by saying that the rangelands in Nevada have a finite amount of forage which can be removed by various kinds of grazing animals in combination or as single species. The whole idea of range management is to try to make sure that the amount of forage is consistent with the number of animals grazing there. We have ways in range management to measure forage utilization and determine the amount of forage that is removed from the landscape.

Recently the Nevada rangeland monitoring task group has been working with the problem of trying to prorate utilization of forage among multiple species of large animals, which is difficult to do. There are several techniques available which are in my statement, which I will not mention here.

We can determine carrying capacity. We can determine utilization. We can determine how many animals the range will sustain, and then it's a matter of making sure that only those number of animals are grazing.

There are numerous examples where rangelands in Nevada have been overgrazed by cattle, by wild horses, by even increasing populations of mule deer and other large grazing animals. I listed some of those areas in my prepared statement.

Just an example, I have been out looking at intensive grazing management systems in the State of Nevada. One of the reasons they do that is to rest portions of the range for certain periods of time to allow the vegetation to renew itself. I have gone out to one area where the pasture was being rested for that particular year, but all the perennial plants, the perennial grasses, which are the primary forage base, were grazed right down to the ground. Well, there were no cattle there, but the wild horses were there. In this particular case, the Bureau of Land Management estimated 40 animals. We counted in an hour flying over 200. So, this then negated the ability of the intensive grazing management system to allow for proper grazing use on the landscape, and that is happening very often.

It should be recognized I feel that the number of animals on any given range area, including wild horses, should be considered as a base herd with the excess animals removed annually. This is something that pastoralists have known for centuries, but the wild horse management programs in the past have not allowed this to happen.

Another thing too. The GAO report of June 1990 indicated that the removal of wild horses has not significantly improved range condition on any of our sites. This is not hard to understand because Nevada's cold desert ecosystems don't react very quickly to rest. It may be even decades or hundreds of years before many of the perennial plants can renew themselves and be brought back in to make these ecosystems a little bit like they were in the far distant past.

So, the wild horses, the cattle, the deer, all impact the range at some unknown level in many cases not adequately. It is a bit ironic to think that the Nevada Department of Wildlife, for example, can regulate the number of mule deer on our rangelands, but simply having a good estimate of hunter success ratios and determining the number of tags that should be allowed and then remove the animals then so they will not have an excess. But in the wild horse program, because of various reasons, we have not been able to do that. So, it has been a problem of overgrazing.

I think that wild horses in Nevada—we know in about 1971 there were estimated to be about 20,000. I would say there are probably 60,000 animals in the State of Nevada now, but nobody knows for sure because we do not really have a good handle on counting them.

We do not have enough monitoring data. It is not sufficient for scientific scrutiny, and so therefore, it is difficult to make decisions based on the data we have available, although I would say that most rangeland biologists can recognize overgrazing when they see it and can, by making counts of the number of animals, determine which animals are causing the overgrazing at that particular time.

Well, it is not unreasonable to think that a portion of the forage on Nevada rangelands should be retained for the wild horses, but the numbers of wild horses should be kept consistent with the available forage keeping in mind that the cattle there are there under legal permit. If we do not want as many cattle, then we have to legally somehow remove cattle. But otherwise, we need to make sure that the number of cattle, the number of horses, the number of sheep, the number of big game animals do not exceed the carrying capacity of the rangelands. I think that we can do that. We have the technical capability. We probably do not have the manpower to do it, but certainly it is a possible thing to do.

PREPARED STATEMENT

The political controversy surrounding the wild horse program, of course, has prevented the application of the knowledge that we do have in some kind of a reasonable manner.

I don't know whether you have a copy of my statement. I have a couple extra copies here.

Senator REID. We do and that statement will be made part of the record.

Dr. TUELLER. Thank you.

[The statement follows:]

STATEMENT OF PAUL T. TUELLER

My name is Paul T. Tueller. I am Professor of Range Ecology at the University of Nevada Reno where I have taught and researched problems on Nevada rangelands for over 30 years.

Let me begin by stating that there is a finite amount of useable forage on Nevada rangelands. The level of utilization of this resource must be consistent with the concept of sustained yield without deterioration of any of our rangeland resources. If this goal is not reached the range is overgrazed and resource deterioration, poor animals, starvation and possibly even death of animals is the result. Range managers have the tools to determine when carrying capacity is exceeded and the range is overgrazed. This is based primarily on determinations of forage utilization and the monitoring of changes in the forage base (trend) as well as monitoring for any deterioration of other resources within the rangeland ecosystem.

Forage utilization may be expressed and measured in several ways, e.g. as the percentage of the herbage weight removed, the number of plants grazed or the height removed. The Nevada Rangeland Monitoring Handbook recommends the use of the Key Forage Plant Method for determining forage utilization because of its relative simplicity, relative objectivity and ease of repeatability. Where horses are the only large grazing animal the procedure is direct and simple. If wild horses, livestock and several species of big-game are found on a rangeland allotment the problem is much more complicated. The Nevada Rangeland Monitoring Task Group has recently suggested five procedures for prorating utilization of forage among multiple species of large animals. These are:

One, use assessment by evaluating utilization at various times.—(Timing the use evaluations or determinations with the time period that each class of herbivore is grazing the pasture or use area). This approach necessitates assessing utilization at more than one time of the year and works best in the nongrowing season.

Two, prorating the use based on the number and size of grazers and the length of time certain animals are on the pasture or allotment.—This technique is useful where season of use and use area are concurrent among grazers and where forage preference significantly overlaps.

Three, rotation grazing systems.—Determine the use by each class of herbivore in pastures not grazed for a particular year or season. However, wildlife commonly use a pasture more or less independent of the nature of livestock grazing in a given year. Pasture fences will effect horse use.

Four, pellet counts, manure or cow chip counts can give a general indication of relative use.—However, animals use some areas primarily for feeding and other areas primarily for resting. Fecal analysis techniques can be used to determine the species utilized and to make estimates of the level of use of certain species. Grasses are relished by both wild horses and cattle. Cattle tend to utilize a greater number species during summer grazing than do horses. Several studies have shown dietary overlap of 70 to 80 percent and higher between cattle and wild horses.

Five, observational data.—Feeding minutes observed of different herbivores grazing or browsing on certain species can provide relative utilization data. Carrying capacity can be determined for each class of large herbivore and is based on productivity and palatability of the available and desirable forage on an annual or seasonal basis. Actual use records of individual range sites, together with a determination of the degree to which the sites have been grazed and evaluation of trend in range condition, are the most reliable factors for developing guides to setting carrying capacity. Carrying capacity may also be based on range surveys designed to establish the annual productivity of desirable forage. Carrying capacity can be defined as the maximum stocking rate possible without inducing damage to vegetation or related resources. It may vary from year to year on the same area due to fluctuating forage production and changes in season of use based on range readiness and other factors. The amount of forage that can be consumed or grazed off without resource degradation is termed proper use. This is what we are striving for on our rangelands.

Even though the Wild Horse and Burrow legislation mandates the protection, management and control of wild horse populations on public lands, it has not been politically possible to do so.—The result has been that many ranges have been heavily overgrazed by wild horses. Numerous examples can be cited where wild horses have overgrazed rangelands. These include Stone Cabin Valley, parts of the Owyhee Desert, parts of the Clan Alpine Range, Kawich Range, Jersey Valley, the Nellis Bombing and Gunnery Range, Chin Creek and Flanagan. Likewise, wild horses are not really managed on public lands since over 50 percent of the budget goes to their management off the public lands as part of the adoption and maintenance program.

Overgrazing has occurred with wild horse use alone and when both wild horses and livestock, primarily cattle were grazing in common. There have been cases

where rest rotation grazing systems have been established to regulate the distribution and level of grazing use by cattle. These systems provide for periods of vegetation rest. However, since the wild horses numbers and grazing use by wild horses has not been regulated, the rested pastures have been severely overgrazed during a year or season when the pasture is being rested from cattle use. Thus the efficacy of the intensive grazing management system is negated by virtue of the fact the horses have not been managed.

It has been pointed out that "the test as to appropriate wild horse populations levels is whether such levels will achieve and maintain a thriving, ecological balance on the public lands." However, the thriving ecological balance has not been clearly defined. What is not clear is the animal species and numbers that have influenced the landscape resulting in the current situation. This is particularly true in relation to the level of erosion or increased levels of erosion. Most "current evidence" of overgrazed rangelands really resulted from events that occurred many years ago mostly prior to the Taylor Grazing Act. The recent GAO report (August 1990) titled "Rangeland Management: Improvement Needed in Federal Wild Horse Program" makes the following point—"BLM decisions on how many wild horses to remove from federal rangelands have been made without benefit of solid information concerning range carrying capacity or the impact of wild horses on range conditions." While the impact may not be known in a quantitative sense it is not difficult for a professional range conservationist or range ecologist to recognize overgrazing.

It must be recognized that the numbers of wild horses on BLM range allotments should be adjusted to a base herd for which proper use can be established and followed. A base breeding herd should be maintained with removal of the annual increase. A certain number of young animals should be left in the herd as replacement animals.

Also the report suggests that wild horse removals have not significantly improved range conditions. This is a very important question. Nevada's cold desert ecosystems do not react quickly to non-use. Plant succession moves only very slowly. Perhaps 100 years might go by before any significant recruitment of important perennial herbaceous species is found in these ecosystems. It is unlikely that the vegetation will recover in the dry end of the sagebrush zone because of competition from the introduced cheat grass.

Monitoring of rangeland vegetation is a combination of both art and science. The data gathered is often too sparse for adequate scientific scrutiny and so the art comes to be the principle source of information. The professional opinion of trained rangeland biologists then becomes the critical factor that must be considered. Wild horses impact rangeland soils and vegetation at some unknown level. The impacts have not been quantified with the possible exception of some studied allotments. It is safe to say that there is no definitive data that will withstand serious scrutiny. Also, monitoring is complicated by the continuous wild horse population fluctuations based largely on the indiscriminate gathers.

We are often our own worst enemy when it comes to the management of vegetation on public lands. The Wild Horse and Burro Act requires the BLM to manage wild horses in a "thriving ecologic balance." However, political interference has precluded that directive and essentially decreed that there will be, at least on many rangelands, be intense overgrazing by wild horses. Wild horses in Nevada have increased from maybe 20,000 in 1971 to likely 60-70,000 currently. Until we pass new laws allowing the management of these animals, many areas of Great Basin Vegetation will suffer. It is ironic that with the authority vested in the Nevada Department of Wildlife to manage resident populations of big game they have the capability of managing the numbers of mule deer, antelope and bighorn sheep so that they will not overbrowse the rangeland vegetation. They do this by increasing or decreasing the number of hunting tags issued and based on good estimates of hunter success.

Livestock numbers are carefully regulated or at least have the potential to be carefully regulated. Base breeding herds of wildlife and livestock are routinely maintained throughout the state and in most places throughout the world so the question is why not do the same with wild horses? Examples of overgrazing by cattle in Nevada or found primarily in riparian areas and areas where, for one reason or another, cattle tend to congregate (along fence lines, at watering points, etc.). This is a matter of a lack of positive management or the means to accomplish positive management. With wild horses the overgrazing can be intense of over large areas when the numbers increase over several years without regulation causing widespread overgrazing on specific allotments. The numbers of wild horses should be controlled so that their populations (base breeding herd) will not exceed the carrying capacity of the rangelands.

It is not unreasonable to expect that a portion of the available forage should be reserved for wild horses. Livestock graze on these ranges under legal permit. Wild horses are there because the public of the United States wants to know that they are out there and that they are doing well. Free roaming wild horses without population checks and management can overgraze the range resulting in poor animals and starvation. Therefore, it is reasonable to think that their numbers should be controlled and kept in line with the carrying capacity of the range to support livestock (where legally permitted), wildlife and other uses. European man brought the horse back to North America minus the predator component of the original herbivore system. Therefore it becomes our (man's) moral and ecological obligation to control wild horse populations for the well being of the horses themselves as well as all other creatures that depend on these rangelands. I would say that the matter of what combination of animals (livestock, wild horses and wildlife) that constitute proper stocking rate on Nevada rangelands is a political matter that must be resolved. Without such resolution our rangelands will continue to be overgrazed.

In summary, let me say that we have the knowledge to manage wild horses and burro's within the carrying capacity of the rangelands, but the political controversy continues to prevent application of the knowledge in a reasonable manner.

STATEMENT OF DR. JOHN GRANDY

Senator REID. We would like to hear now from Dr. John Grandy. We will have some questions for all of you when you finish.

Dr. GRANDY. Good morning. Thank you, Senator. I am Dr. John Grandy, vice president for wildlife and habitat protection of the Humane Society of the United States. I want to thank the distinguished members of this committee and you particularly, Mr. Chairman, for the opportunity to testify today on this important issue, reproductive control.

I offer my statement on behalf of the American Humane Association and the Humane Society of the United States and our combined constituency of more than 1.5 million persons. For the convenience of the committee and in the event that there are technical questions regarding contraceptive techniques, I have with me today Dr. Jay F. Kirkpatrick, professor at Eastern Montana State College, professor of reproductive biology, and an internationally recognized expert in equine fertility control.

Many fertility control programs have been proposed in past years, each one with its unique advantages, disadvantages, supporters and opponents. Thus, I would like to begin by urging the BLM to establish standardized criteria against which each program can be objectively measured. This recommendation has been expressed extensively in our submitted written testimony which I hope will be included in the record.

Senator REID. It will be.

Dr. GRANDY. Thank you.

In the interest of time, I will limit my remarks to the three major types of fertility control currently under consideration: chemosterilization; sterilization, meaning vasectomy, castration, or tubal ligation; and immunocontraception. I will discuss the advantages and disadvantages of each and will conclude with our considered recommendations.

Chemosterilization. In the mid-1980's, fertility control studies were conducted in Nevada in which mares were surgically implanted with steroid hormones. The Lovelock pen studies produced estimates of effective dosage levels, a delivery vehicle, and a surgical procedure that resulted in 70-percent infertility for 28 months in treated animals. The field studies showed foaling rates decreasing

from 40 to 50 percent to 10 percent for at least 2 years in implanted mares. Although hormonal implants were shown to successfully control fertility, we have serious concerns about this method.

First, the process of rounding up, restraining, and surgically implanting the rods containing the steroid was highly stressful and invasive to the horses. After being chased by helicopters into traps and physically restrained, the mares were anesthetized, a surgical incision was made into their necks, and large implants were inserted. Finally, a radio collar was fitted behind the animal's head. These procedures caused marked physical stress to the horses and, as you suggested earlier, the death of more than 50 in one instance.

Additionally, the behavioral impacts associated with chemosterilization have not been adequately studied. We are concerned that there may be serious impacts to the mating behavior and herd dynamics associated with the use of hormones in wild horses. Further, the possibilities of abortion and steroids passing through the food chain via carcasses of treated mares have not been studied or ruled out. Finally, we question the feasibility of using chemosterilization in the field because of the necessity to perform surgery in field conditions and because of the controversial nature of the program.

Although vasectomy, castration, and tubal ligation are readily available methods that produce reliable sterility, we believe their use in fertility control programs for wild horses is unacceptable. First, we object to the invasive and permanent nature of these controls. To neuter either mares or stallions requires permanent, nonreversible surgery. Further, the very concept that sterilizing dominant stallions will curtail reproduction is flawed because of the fluid nature of wild horse herds and the likelihood of the behavioral change in altered animals. We believe that sterilization of stallions and mares is an unacceptable fertility control method in wild horses and burros and should not be considered.

Finally, immunocontraception. The field studies on this method of fertility control are very encouraging. Immunocontraception simply means vaccinating wild horses to inhibit fertilization and/or implantation, thus reducing reproductive levels by halting reproduction. Studies have shown immunocontraception to be 97- to 100-percent effective. Moreover, this technique provides several critical advantages. It is entirely reversible, does not affect the social integrity of wild horse bands, and the active agent does not pass through the food chain, and it is injected by dart. Potentially it can be injected by darts from helicopters.

Currently immunocontraception requires both an initial and a booster shot for the first year of contraception and a booster each subsequent year. However, a major research effort is now focused on developing a one-shot delivery mode which would provide efficacy for two seasons or more. Moreover, I must note that the National Park Service, a sister agency to the BLM within the Interior Department, is currently using immunocontraception for managing wild horses on Assateague Island, MD, and for managing wild burros on the Virgin Islands.

Our organizations view immunocontraception as the most safe, humane, and effective method currently available and recommend

that the BLM focus its research efforts on development of immunocontraception as a workable alternative to current destructive management programs.

PREPARED STATEMENT

However, I must add in closing one important caveat. While immunocontraception appears to be the best alternative to continued mass wild horse removals, it should be used only where absolutely necessary, to the minimum extent necessary and only in conjunction with an approved, comprehensive management plan.

Thank you, Mr. Chairman.

Senator REID. You are sure welcome.

[The statement follows:]

STATEMENT OF JOHN W. GRANDY

Good morning. I am Dr. John W. Grandy, Vice President of the Wildlife and Habitat Protection section of The Humane Society of the United States (HSUS). I thank the distinguished members of this Committee for the opportunity to testify today on one of the most important issues currently affecting wild horses and burros on America's Western rangelands—reproductive control. I offer my statement on behalf of the American Humane Association (AHA) and The HSUS, and our combined constituency of more than 1.5 million persons nationwide. For the convenience of the Committee, and in the event that there are technical questions regarding contraceptive techniques, I have with me today Dr. Jay F. Kirkpatrick, Professor at Eastern Montana State College, and a nationally recognized expert in equine fertility control.

The HSUS and the AHA have been involved in the protection of wild horses and burros for more than twenty years, and we hope that the information provided today on this topic facilitates prudent decision-making. Many fertility control programs have been proposed in past years, each one with its unique advantages, disadvantages, supporters and opponents. Thus, I would like to begin by urging the BLM to establish standardized criteria against which each program can be objectively measured. This recommendation has been addressed extensively in our submitted written testimony, thus I will not elaborate here, but would like to incorporate that testimony now by reference.

In the interest of time, I will limit my remarks to the three major types of fertility control currently under consideration—chemosterilization, sterilization (vasectomy, castration, and tubal ligation) and immunocontraception. I will discuss the advantages and disadvantages of each, and conclude with the recommendations of The HSUS and AHA.

Chemosterilization

In the mid 1980's, fertility control studies were conducted in Nevada in which mares were surgically implanted with steroid hormones. The Lovelock pen studies produced estimates of effective dosage levels, a delivery vehicle and a surgical procedure that resulted in 70 percent infertility for 28 months in treated animals. The field studies showed foaling rates decreasing from 40 to 50 percent to 10 percent for at least 2 years in implanted mares. Although hormonal implants were shown to successfully control fertility, we have serious concerns about this method.

First, the process of rounding-up, restraining and surgically implanting the rods containing the steroid was highly stressful and invasive to the horses. After being chased by helicopters into traps and physically restrained, the mares were anesthetized, a surgical incision was made into their necks, and large implants inserted. Finally, a radio collar was fitted behind the animals' heads. These procedures caused marked physical stress to the horses.

Additionally, the behavioral impacts associated with chemosterilization have not been adequately studied. We are concerned that there may be serious impacts to mating behavior and herd dynamics associated with the use of hormones in wild horses. Further, the possibilities of abortion and steroids passing through the food chain via carcasses of treated mares have not been studied or ruled out. Finally, we question the feasibility of using chemosterilization in the field because of the necessity to perform surgery in field conditions.

Sterilization

Although vasectomy, castration and tubal ligation are readily available methods that produce reliable sterility, we believe their use in fertility control programs for wild horses is unacceptable. First, we object to the very invasive and permanent nature of these types of controls. To neuter either mares or stallions requires permanent, non-reversible surgery. Further, the very concept that sterilizing dominant stallions will curtail reproduction is flawed because of the fluid nature of wild horse herds and the likelihood of a behavioral change in altered animals. Indeed, in answer to the dominant stallion's inability to impregnate mares, subordinate stallions may sire foals, or mares may move between bands. Clearly, intense behavioral impacts would occur with the use of this extreme measure. The use of tubal ligation in mares would carry with it similar sorts of concerns: invasive surgery, permanence, and genetic and behavioral impacts. Also, importantly, removing dominant stallions from the genetic pool may have devastating effects on the viability, and future genetic strength, of the herd. We believe that sterilization of stallions and mares is an unacceptable fertility control method in wild horses and burros, and should not be considered.

Immunocontraception

The field studies on this method of fertility control are very encouraging. Immunocontraception simply means vaccinating wild horses to inhibit fertilization and/or implantation, thus reducing or halting reproduction. Studies have shown immunocontraception to be 97 percent or more effective in preventing pregnancy. This technique provides several critical advantages. It is entirely reversible, does not affect the social integrity of wild horse bands, and the active agent does not pass through the food chain. Potentially, this method can be delivered from helicopters by darts containing the vaccine, thereby eliminating the need for round-ups, restraint and surgery. Behavior is not directly affected because the contraceptive action stimulates the immune system to block fertilization, unlike other methods which alter hormone balances and can have severe behavioral impacts.

Currently, immunocontraception requires both an initial and booster shot for the first year of contraception, and a booster each subsequent year. However, a major research effort is now focused on developing a one-shot delivery which would provide efficacy for two seasons or more. Moreover, I must note that the National Park Service, a sister agency to the BLM within the Department of the Interior, is currently using immunocontraception for managing wild horses on Assateague Island, MD, and for managing wild burros on the Virgin Islands.

The HSUS and AHA view immunocontraception as the most safe, humane and effective method currently available and recommend that the BLM focus its research efforts on development of immunocontraception as a workable alternative to current, destructive management programs. However, we must add one important caveat: while immunocontraception appears to be the best alternative to continued mass wild horse removals, it should be used only where absolutely necessary, to the minimum extent necessary and only in conjunction with an approved, comprehensive management plan; specifically, a plan that protects the integrity of wild horse herds and manages them as a viable component of their public land habitat.

In closing, we encourage all involved to bear in mind the public's interest when considering this matter. We believe that a poorly implemented or ill-considered fertility control program that includes invasive procedures, major behavioral modifications, or mortality will provoke substantial negative public reaction. In keeping with the public trust, criteria for fertility control programs and humane contraceptive techniques must be established. We urge this Committee to oversee the development of these initiatives and ensure that such positive and far-reaching actions are taken.

Again, I would like to thank the distinguished members of the Committee for this opportunity to express our views.

STATEMENT OF DR. WALT CONLEY

Senator REID. We will hear now from Dr. Walt Conley.

Dr. CONLEY. Thank you, Senator, for inviting me today.

I would like to make one quick correction to the record. My home base is New Mexico State University down in Las Cruces. The University of New Mexico is in Albuquerque.

Senator REID. That is sure true. Staff should have known that too. Sorry about that.

Dr. CONLEY. That's not a problem.

Senator REID. I know there is a little intrastate rivalry there between the two institutions.

Dr. CONLEY. Just like every State, Senator.

Senator DOMENICI. I wanted to say, Doctor, it's correct in my notes. [Laughter.]

Dr. CONLEY. Thanks, Pete.

My name is Walt Conley. I'm a professor of biology at New Mexico State University. I have been a professor of wildlife management at Michigan State University at East Lansing, and I was also for several years involved with the wildlife program at New Mexico State.

I have been involved with the wild horse and burro program through participation in the first National Academy of Sciences panel on wild horses and burros where I was chairman of the Subcommittee on Biology. I was an invitee to the second panel on horses and burros and did not participate. I have been involved for some 15 years with training programs for the Bureau of Land Management and Forest Service through short courses and so forth that we have been teaching.

My written statement dealing with modeling and demographics in wild horse populations contains detail and references and so forth. So, with your permission I will skip over that. I would, however, like to read a few paragraphs from that statement that deal with some recommendations.

All too often people argue that available theory is characterized by a relative lack of interaction with relevant population data and is thus developed on weak or nonexistent empirical bases. In the present case, we have a body of empirical data with resultant analyses and interpretations that is characterized by a lack of connection with relevant and a well-developed body of theory. Application of this theory to modeling and decision analysis in horse populations can provide many benefits.

And skipping over toward the last of my statement for recommendations, Senator, in my view the basic issue here is one of agency credibility. Better data and more sophisticated analysis and presentation of that data will ultimately serve to convince the skeptics that do not believe the information. The history of such public controversies as the wild horse demonstrate a tendency for an agency to grow in sophistication and credibility as increasing public and political pressure demands an ever more professional product from agency personnel.

To date, the BLM and U.S. Forest Service have spent well over \$5 million in research programs on the horses and burros. Much of this research has not translated into any useful management practices and the overall credibility of agency recommendations has increased only slightly in the past 15 or so years. Speaking as a member of the first National Academy of Sciences panel on horses and burros and an invitee on the second panel, I suggest that in retrospect much of this research has been ill-advised and that these funds would have been much better spent on increasing the strength and the sophistication of the BLM horse and burro specialist program.

While I see credibility as a primary problem, it is, in fact, one that can be reasonably solved. A detailed list of specifics is not ap-

appropriate in the brief time available here. I, therefore, choose to concentrate on the more generic and longer term solution, a solution that is directed to resolving the fundamental problem of agency capabilities. The assumption involved here is that the agencies and all parties involved, indeed, want to find a reasonable solution to the problems presented by horse and burro populations. The goal here is to develop a capability within the agency to conduct the very best data gathering and analyses possible. Given that and given some time to prove that the program is doing the best that can be expected, the result I submit would be a growing level of credibility and respect that would lead to a general cooling off on the part of all involved parties. Once it was recognized that the agencies and involved interested parties had available the very best data and analysis, the focus would inevitably shift to strategies of wise management. The modeling efforts that I suggest provide a focal point for this desirable consequence and would do so at moderate cost.

Briefly put, I recommend the three following steps.

First and foremost, hire some professional wildlife/vertebrate biologists in the BLM horse specialist program. The primary need here is to develop within the BLM a capability for sophisticated estimation, analysis, and modeling of population data on horses and burros. Through teaching five short courses to BLM and U.S. Forest Service personnel over the past 15 years, I have come to appreciate the fact that the BLM has far too few professional vertebrate biologists among the horse and burro specialists. Appropriately trained wildlife biologists, as contrasted to range management disciplines, possess the mathematical and vertebrate biology background to allow growth into the necessary population analysis and modeling capabilities required to resolve the credibility issue. Every BLM district that has wild horses or burros should have a professional wildlife biologist in residence.

Second, create a formal training and course work program for the horse and burro specialists. Even trained wildlife biologists cannot be expected to work fully with the sophisticated analysis and modeling required for the horse and burro program. They can, however, be trained to accomplish the work if an appropriate education program is in place. Such a formal program that makes training and practice routine is required to bring all of the specialists to the same high level of expertise. This training program could best initially be developed outside the BLM, perhaps with the goal of moving the program inside the agency at some specific time in the future.

Finally, create a center for horse and burro population analysis that centralizes model development, training, and dissemination of related information. Such a center might best be started at an appropriate academic institution, for reasons I suggest in a footnote, with the goal of moving the program back into the BLM at a future time, perhaps 5 years or so. Such a center would serve to draw on existing, credible, academic agency and in some cases State level expertise. It would serve to focus attention on solutions of some real management problems. It would be involved in development of an analysis and modeling systems, and it would provide a high level of specialized expertise for training and problem solving that

currently is not institutionalized within the BLM. An appropriate director of such center could make all of this a reality for a moderate cost compared to research programs that are not serving any discernible purpose.

• Parenthetically and finally, I would like to add that it is worth noting that the U.S. Forest Service has a large number of highly credible and reputable experiment stations. The U.S. Fish and Wildlife Service has its laboratories, for example, at Patuxent and the Denver Wildlife Research Center, plus a large number of cooperative wildlife units in many States based in universities. The U.S. Park Service has similar centers of expertise at several universities and several States, notably Minnesota and Michigan, have established focal points of specialized expertise that provide such services.

Only the Bureau of Land Management in my experience lacks such organizational aids and specialized advice. In each case the driving force was a controversial management issue, and in each case the expertise and the credibility ultimately won out over the rhetoric. The BLM has not yet managed to develop such expertise, and in my view the horse and burro is a prime example of the need.

Finally, Senator, I would like to make a couple of off-the-cuff comments about what we do know how to do.

The field of modeling—

Senator REID. Be as quick as you can please.

Dr. CONLEY. Yes.

The field of modeling and parameter estimation in wild populations is quite sophisticated. We do, in fact, know how to count horses better than we know how to count such species as white tail deer or mule deer. But the white tail deer and mule deer programs are not existing under the light of the political pressure and the controversy. We know how to do these sorts of things, and I have discussed some of that in my written statement. I just wanted to make that point.

PREPARED STATEMENT

Senator REID. Your statement will be made part of the record. It is an outstanding statement. I appreciate the time that you spent obviously in preparing the statement.

[The statement follows:]

STATEMENT OF DR. WALT CONLEY

Modelling Wild Horse Populations¹

Background

Considerable effort has been devoted to gaining understanding of the population biology of the feral horse. Raw data have been obtained from management programs of capture and census. Field and laboratory research has provided experimental explanations for observed patterns of horse demography. Some of the best biologists in the world have examined patterns of behaviour, physiology, genetics, and demography of the horse. The scientific literature now contains about 900 papers on feral horse biology. Modelling studies have included extensive analysis of the raw data and of the underlying theoretical foundations of population dynamics of the horse, as well as some extensions that include economic projections, and consideration of management alternatives.

All too often people argue that available theory is characterized by a relative lack of interaction with relevant population data ... (and is thus developed on weak or non-existent empirical bases... Pollock, Nichols, Brownie, and Hines 1990). In the present case, we have a body of empirical data, with resultant analyses and interpretations, that is characterized by a lack of connection with a relevant and well developed body of theory. Application of this theory to modelling and decision analysis in the horse can provide many benefits.

In addition to modelling techniques, there is an extensive body of literature concerning parameter estimation in wild vertebrate populations. Relevant expertise exists to get this job accomplished on wild horse populations. The unfortunate fact is that much of this knowledge has never been brought to bear on the management of the wild horses of the western states. In the brief remarks that follow, I outline some of the background biology of the horse, describe some of the current technology available for analysis and modelling, and conclude with a general recommendation directed toward increasing the credibility and expertise of the federal agencies responsible for wise management of the horse.

The Basics of Wild Horse Demography

Demography is the scientific study of vital statistics of populations. Vital statistics include the primary factors of birth, death, emigration, and immigration rates. Secondary demographic factors include age structure, primary (at fertilization or birth) and secondary (after fertilization or birth) sex ratios, age at first copulation for females and males, frequency of effort of reproduction, and clutch or litter size. Other important demographic factors in the horse include average band size, degree of fidelity to a band (for both females and males), and such complex attributes as genetic structure and group behaviour. For all of these components of horse demography we have credible field data that demonstrates the general patterns and the range of variability. Thus, our knowledge of the population dynamics of the horse can indeed guide the expectations of managers charged with decisions that affect the status of the horse.

If we know anything whatsoever about population dynamics of organisms, it is that the patterns within species are variable across space and through time. These patterns of variability are founded in the evolutionary history of the species and in large measure depend on proximal conditions of the local environment. The horse is no exception.

Briefly, the evidence suggests that copulation in typical horse populations occurs during May and June, with foaling occurring during April, May, and June. All months of the year have been reported in lesser amounts. Serum protein studies demonstrate that percent breeding (foaling) in 24 month old mares varies from 11% in WY, to 22% in NV, and pooling ages from 2 to 25 yrs produces average percent breeding figures that for example were 61% in OR, 57% in NV, 81% in WY. Overall, we find figures ranging from 36% to 82% breeding mares in any given population at any given time, with one study reporting 63% overall. These papers include original field studies reported by Seal and Plotka (1983), Wolfe (1980), Speelman et al. (1944), Tyler (1972), Frost and McCullough (1975), Welch (1975), Kelper (1979), Boyd (1979), Berger (1980), Siniff et al. (1980), and Nelson (1979).

Number of offspring (clutch or litter size) produced is typically one (horses do have twins but the frequency is low and not demographically important). Gestation in the horse is about 11 months. Post-partum estrus and copulation occurs with variable frequency. Primary sex ratio is typically 1:1 (but some populations have exhibited statistically significant divergence, most often in favor of females). Secondary sex ratios are typically 1:1, but some populations have exhibited slight divergences in older age classes.

Age-specific survival rates from original field studies have been reported as ranging from 82% to 92% for foals (Speelman et al. 1944; Frost and McCullough 1975; Welch 1975; Boyd 1979; Nelson 1979, and Berger 1980). Adult (i.e. 6 mos and older) survival ranges between 84% and 97% (Tyler 1972; Welch 1975; Kelper 1979; Nelson 1979; Berger 1980; and Siniff et al. 1980).

¹Presented to the Interior Appropriations Subcommittee, U. S. Senate, 20 June 1991. Walt Conley, Department of Biology, New Mexico State University, Las Cruces, NM 88003, 505-646-2541 (Office), 505-646-5004 (FAX), wconley@nmsu.edu (Email).

The highest variances in any of these demographic attributes are in the proportion breeding data. Because of the dependence on body condition which depends on the nutritional environment of the landscape, this is to be expected. At the same time, while survival rates are relatively less variable, differences of several percentage points have important effects on demographic mechanics and rates of increase, and cannot be ignored. Such differences are difficult to estimate in wild populations.

Combining the high ends of these demographic attributes (survival and proportion breeding) yields potential rates of increase in field populations of around 18%, while lower combinations yield rates of increase of under 8%. These rates arise from populations studied in different times at different places. I know of no long term study that demonstrates such variability in a single population over time, although such temporal changes are to be expected as the environment changes, and as the dynamics of the population are influenced by management activities. Thus, there are good reasons to expect that these demographic variables are changing over time as well as location. A primary point to be made here is that rates of increase in the horse cannot be generalized — specific information on herds in question is required.

Methods for Determining Population Numbers

The basic methods for estimating numbers in horse populations involve observation from either fixed-wing or rotary aircraft. In some cases (mostly with the Arizona burros) "mark-recapture" analysis with simple Lincoln/Peterson Index projections have been used. Field studies conducted at the suggestion of the first U.S. National Academy of Sciences panel on Wild Horses and Burros (by a research team at the University of Minnesota) resulted in a "Census Manual" (Siniff, Twiter, Cook, and McMahon 1983) that describes many of the variables that influence accuracy of such estimations (which included effects of observer experience, topography, vegetative cover, time of day and season, temporary ground cover such as snow, and cloud cover). Suggestions were also made for data recording and analysis.

More recently, an excellent study in population censusing is underway by Valerie Dobrich (US BLM Horse Specialist, Battle Mt., NV) using a new fixed-wing aircraft and technical support especially designed for census work (the "Maule NSAII aircraft and Western Air Research, Inc.), in conjunction with some recent capabilities at very accurate field location designations. This work, funded by the Nevada Commission for the Preservation of Wild Horses, demonstrates the potential for accurate estimation of population numbers.

Our current abilities at estimating numbers of wild horse and burro populations are excellent (and because of the Dobrich/Battle Mt. efforts becoming materially better). Unfortunately, not much of this work has made the leap from the academic literature or management of other vertebrate species (such as ducks) to management practices involving horses and burros. It is essential that the estimation of population parameters in wild horse populations be brought into accord with what we in fact know how to do in the way of gathering and analysing relevant data. This issue extends from simply estimating numbers of animals in managed populations, to estimation of several of the secondary demographic parameters critically important for modelling and management decision analysis of horse populations.

At the same time, it is essential that the legal and political establishments recognise that all such numbers gained from wild populations are in fact statistical estimates. Statistical estimates are subject to statistical errors that are a function of conditions, and of intensity and design of sampling, which are in turn, most often a function of funding levels, not disciplinary knowledge. It is imperative that reports of all such estimates begin to include calculation and presentation of statistical confidence limits. We have long known how to make such calculations, and reality demands the clear presentation of methods and the statistical limits.

Techniques and Availability of Wild Horse Population Models

Analysis and modelling efforts have provided a generalized pattern of demographic mechanics for horse populations that is understood about as well as for most large mammal populations that are being intensively managed. Certainly these patterns are well enough understood to allow rational simulation of horse populations within the larger context of management decision analysis². Effecting change in the demographic mechanics of horse populations (like any other) involves the potential for changing either survival or breeding schedules.

Because of unattainable mathematical assumptions, much of the recent work on parameter estimation and modelling is simply not applicable to horse populations, and without good estimates of the demographic variables, there can be no believable projections. These methods include those of Eberhardt (1985, 1987, 1988); Dapson (1980); Eberhardt and Siniff (1988); Eberhardt, Majorowicz, and Wilcox (1982); along with a host of similar papers in the literature on parameter estimation in wildlife populations. The use of these methods in the various parameter estimation papers and modelling projections by Garrett and Taylor (1990: *J. Wildl. Mgt.*); Garrett (1991: *Wildl. Soc. Bull.*); Garrett, Eberhardt, and Siniff (1991: *J. Wildl. Mgt.*); Garrett, Siniff, Twiter, and Plotka (1991: *Proc. Wildl. 2001*); and Garrett, Siniff, Twiter, Eagle, and Plotka (Submitted, *Wildl. Soc. Bull.*) provides results that are demonstrably not meeting the explicit mathematical assumptions upon which these methods are based.

²It could be argued, of course, that the relative lack of sophistication in analysis and modelling efforts of large mammals generally is not adequate, and that it shows more in horse issues because of the highly critical political climate that serves to focus unusual attention on the techniques and resulting interpretations.

Further confounding the issue is the fact that correct estimation of demographic parameters also depends on the constancy of detection probabilities in sampling schemes for horses. Based on the census work of the Minnesota researchers in the late 1970's (Siniff, et al., Final Report to BLM, and draft version of Census and Population Analysis Manual dated 16 Sep 1983, U.S. BLM), it is clear that we cannot meet this assumption in horse populations. Depending on terrain, habitat, and season, as well as time of day, cloud cover, and ground cover, the probabilities of sighting individuals and bands of horses vary significantly across locations and through time. Thus, pooling of data across management units, districts, or at state and regional levels is proscribed.

All of these critical assumptions have been repeatedly laid out in the literature. Caughley (1977) described the assumptions and clearly defined some of the mis-estimation problems that arise. Conley (1978) demonstrated the assumptions in a theoretical paper dealing with the mathematics of population projection models. Sauer, Barker, and Geisler (In Press) provide a thoroughly documented examination of parameter estimations involving finite rates of increase (λ), and conclude that in most realistic cases, it is not possible to properly estimate this much mis-used parameter from the kind of data typically being used. Seber (1973) described additional problems in estimating survival and natality from age structure data. The work of Anderson (1978 and papers cited therein); Pollock, Nichols, Brownie, and Hines (1990); and Sauer and Droege (1990) clearly lay out the problems, and provide some solutions. In many cases, the "solutions" reduce to advice that such calculations simply should not be attempted. In addition, the monograph by White, Anderson, Burnham, and Otis (1980 and citations therein) describes models and algorithms by which such estimates can be accomplished properly, given the proper data in the first place.

The blunt fact is that we are probably going to have to abandon age-specific parameter estimation in vertebrate populations, unless the data are drawn from marked cohorts and followed for periods of time that approximate generation times of the species involved².

This rather bald contention requires documentation. Conley (1991 *ms*) provides the demonstration (see also the series of papers cited above). Conley demonstrates that those modelling techniques are generally inadequate and too shallow to provide computational images of real horse populations. This research included projections of realistic demographic mechanics in horse populations. The projections were followed by sampling from the simulated populations. The results demonstrate that the sampling and estimation techniques criticized above do not return reasonable estimates of the actual parameters by which the projections are generated. The assumption that horse populations are existing in any state approaching equilibrium cannot be demonstrated as fact - quite the opposite - real horse populations are demonstrably variable in their density, age structure and breeding proportion vectors. Even if the further assumption of no immigration or emigration is true (a debatable question for most horse populations) the equilibrium assumptions in the mathematical approaches being employed in the above cited papers cannot be demonstrated as having been met. Finally, even if the assumptions of stable age can be met, and even if the population is indeed closed, the problem of sampling and estimation schemes that fail to incorporate varying detection probabilities would still render the results essentially useless.

Available models for horse and burro work are reasonably sophisticated, and can reasonably be made specifically relevant to horse populations for management decision analysis. The most recent version of one such research model was described by Conley ("A Manual for Demographic Analysis of Wild Populations," Version 3.1, June 1990). The basic mathematical structure and theory that underlies this continuing modelling effort was described by Conley (1978). Various versions of this model have been used in 5 short-courses taught to BLM and USFS specialists over the past 13 years, several of which have been also attended by representatives of the horse protection groups. Various papers that describe the evolution of this approach to modelling vertebrate populations have been produced on a diverse range of species. A review of such models was provided by Conley and Nichols (1978). Among various species and topics that have been considered are reproductive strategies in desert rodents (Conley, Nichols, and Tipton 1977), which led to further discussions concerning temporally dynamic reproductive strategies (Nichols, Conley, Batt, and Tipton 1976). Management and theoretical issues were considered in restocking quotas in alligators (Nichols, Chabreck, and Conley 1976), and in desert bighorn sheep, where stochastic versions of this model were used to investigate reintroduction strategies and reproductive potentials (Lenars and Conley 1980, 1982). Demographic mechanics and reproductive potentials in scrub goats, as well as extinction probabilities in remnant populations of desert bighorn sheep were investigated by Watts and Conley (1984, 1981). Demographic compensation in coyotes was demonstrated by Sterling, W. Conley, and M. Conley (1983). Potential rates of increase in horse populations were described in (Conley 1979, 1984). Various possibilities for extensions of such models that employed machine intelligence have been described by Conley (1983) and Conley and Sengupta (1988, 1989). The latter 8 papers are important in another context, since they demonstrate the lack of depth of realistic theory that can be used in modelling population dynamics. Kurt Nelson (1978) used an earlier version of this model to investigate the potential for male sterilisation as a mechanism of population control in horses. In addition to the above published works on this philosophy of modelling, about 60 technical papers concerned with various aspects of this work have been presented by W. Conley and co-workers over the past 20 years.

²In horses, generation times are variable, and the results also depend upon which technique is used. Conley (1978) presents a discussion of these contrasts. For most purposes, generation times in horses are on the order of 10-13 years depending on which method is used, and on the shape of both the survival and reproductive schedules.

Accuracy of Wild Horse Population Modelling

In conjunction with an adequate field program of parameter estimation, modelling projections of wild horse populations can be extremely accurate. The lack here is not in the adequacy of the models, but rather in the general quality of the parameter estimates. This does not mean that we require perfect field data, but rather adequate field data. What is needed is an integrated program of field data collections, data management and analysis, modelling, and decision analysis. With each of these components working together, the required level of agency credibility could be attained.

Costs, Practicality, and Benefits of Population Modelling

When integrated with an appropriate field program as listed just above, modelling (in the broadest sense) can be cost effective and beneficial at levels that can be attained in no other way. In the "Recommendations" section just following, I outline how this can be effected.

Recommendations to Improve the Program through Modelling

In my view, the basic issue here is one of agency credibility - better data and more sophisticated analysis and presentation will ultimately serve to convince the skeptics. The history of such public controversies as the wild horse issue demonstrate a tendency for an agency to grow in sophistication and credibility as increasing public and political pressure demands an ever more professional product from agency personnel. To date, the BLM and USFS have spent over \$5,000,000 in research programs on the horses and burros. Much of this research has not translated into any useful management practices, and the overall credibility of agency recommendations has increased only slightly over the past 15 or so years. Speaking as a member of the first NAS panel on horses and burros, and an inviter on the second panel, I suggest that in retrospect, much of this research has been ill advised, and that these funds would have been much better spent on increasing the strength and sophistication of the BLM Horse and Burro Specialist program.

While I see credibility as a primary problem, it is in fact one that can be reasonably solved. A detailed list of specifics is not appropriate in the brief time available here. I therefore choose to concentrate on a more generic and longer term solution - a solution that is directed to resolving the fundamental problem of agency capabilities. The assumption involved here is that the agencies and all parties involved indeed want to find a reasonable solution to the problems presented by horse and burro populations. The goal is to develop the capability within the agency to conduct the very best data gathering and analysis possible. Given that, and given some time to prove that the program is doing the best that can be expected, the result, I submit, would be a growing level of credibility and respect that would lead to a general cooling off on the part of all involved parties. Once it was recognized that the agencies (and involved interested parties) had available the very best data and analysis, the focus would inevitably shift to strategies of wise management. The modelling efforts that I envision provide a focal point for this desirable consequence, and would do so at moderate cost.

Briefly put, I recommend the following steps:

- Hire some professional Wildlife/Vertebrate Biologists in the BLM Horse Specialist program.

The primary need is to develop within the BLM a capability for sophisticated estimation, analysis, and modelling of population data on horses and burros. Through teaching 5 short courses to BLM and USFS personnel over the past 15 years, I have come to appreciate the fact that the BLM has far too few professional vertebrate biologists among the Horse and Burro Specialists. Appropriately trained Wildlife Biologists (as contrasted to Range Management disciplines) possess the mathematical and vertebrate biology background to allow growth into the necessary population analysis and modelling capabilities required to resolve the credibility issue. Every district that has wild horses or burros should have a professional wildlife biologist in residence.

- Create a formal training and coursework program for the Horse and Burro Specialists.

Even trained wildlife biologists cannot be expected to work fully with the sophisticated analysis and modelling required for the horse and burro program. They can, however, be trained to accomplish the work if an appropriate education program is established. Such a formal program that makes training and practice routine is required to bring all of the Specialists to the same (high) level of expertise. This training program could initially be best developed outside the BLM, perhaps with the goal of moving the program inside the agency at some specific time (perhaps 3-5 years, as expertise is developed internally).

- Create a "Center" for Horse and Burro Population Analysis that centralizes model development, training, and dissemination of related information.

Such a Center might best be started at an appropriate academic institution⁴, with the goal of moving

⁴This suggestion is not made lightly. Placing the proposed Center at a neutral site for the start-up period would allow Center personnel to involve all of the various interested factions in the efforts of the data management, analysis, and modelling program. In this manner, the entire effort gains an open "all-are-welcome" atmosphere, that will go far toward assuring success.

the program into the BLM at a future time (perhaps within 5 years or so, as BLM expertise is developed). Such a Center would serve to draw on existing and credible academic, agency (primarily USFWS), and in some cases state expertise, would serve to focus attention on solutions to some of the real management problems (as brought to the Center by participating field personnel), would be involved in development of analysis and modelling systems, and would provide a high level of specialized expertise for training and problem-solving that currently is not institutionalized within the BLM. An appropriate "director" of such a Center could make all of this reality for a moderate cost (compared to research programs that do not serve any discernable purpose).

Parenthetically it is worth noting that the USFS has its "Experiment Stations", the USF&WS has its "Laboratories" (e.g. Patuxent and the Denver Wildlife Research Center) plus many "Cooperative Wildlife Units" based in universities across the nation. The U.S. Park Service has similar centers of expertise at several universities, and several states (notably Minnesota and Michigan) have established focal points of specialized expertise that provide such services. Only the BLM, in my experience, lacks such organizational aids and specialized advice. In each case, the driving force was a controversial management issue, and in each case, the expertise and credibility ultimately won out over the rhetoric. The BLM has never managed to develop such expertise, and in my view, the horse and burro issue is a prime example of the need.

Costs and Prognosis

The hiring of professional wildlife/vertebrate biologists can perhaps be accomplished within the existing structure of the BLM. If not, then costs can be estimated by the BLM.

Costs to establish the "Center for Horse and Burro Population Analysis" are moderate compared to funds expended on research programs over the past 12 years. If initially established (as suggested) at an appropriate academic institution, the entire program of the Center and the training as briefly described above would cost about \$100,000 per year as a minimal configuration, and perhaps twice that as a higher level operation that has the potential to exert maximal influence. I have not pursued this topic with BLM personnel, and am unable to estimate the cost of transferring the Center to internal BLM control at this time.

WESTERN RANGELANDS

Senator REID. Dr. Tueller, you are familiar with the GAO report. Is that right?

Dr. TUELLER. That's right.

Senator REID. I do not know how to say this any better than just how I say it. Do you think the GAO understood, when they prepared this report, western rangeland ecology?

Dr. TUELLER. Do I think what now?

Senator REID. The GAO understood when they prepared this report, western rangeland ecology?

Dr. TUELLER. Well, in part I would say.

Senator REID. What, if anything, is wrong with their report?

Dr. TUELLER. One of the things that is not recognized is that many people who go out on the western rangelands and look at overgrazing and the result of it, for example, gulleying, erosion, the lack of perennial plants, tend to feel this happened last week or last month or last year whereas, in fact, it happened decades ago. Back about the turn of the century is when most of the heavy grazing and reduction in perennial plants and range deterioration took place. I think that it has steadily improved in our management since then, but as I mentioned before, the ability of these ecosystems to bound back is limited because they are dry land range areas. They have always been shrub-dominated, at least in Nevada.

Senator REID. They have always been what?

Dr. TUELLER. Shrub-dominated. There are some people who would lead you to believe that many of these areas were grasslands, but we have many kinds of scientific evidence to show that

at least since the pleistocene, that they have been shrub-dominated.

So, the point is that the overgrazing took place a long time ago. It is not taking place now except in some very specific areas. We know that our riparian are problems, around water points.

Senator REID. You wouldn't disagree with what Mr. Catoore said about the Nellis range, would you?

Dr. TUELLER. No; I would not. I have been on the Nellis range. I have done research on the Nevada test site. I've seen all those areas firsthand.

Senator REID. We have some pictures here that show the present state of those horses, and there will be more testimony here today. But those horses are not eating enough.

Dr. TUELLER. They're not what?

Senator REID. Eating enough.

Dr. TUELLER. No; they're not. The numbers have increased to the point where in many places the animals have become poor and they will simply starve to death.

Senator REID. Dr. Tueller, you indicated in your statement that there was an area that you were familiar with that everything else had left, but the horses were still there.

Dr. TUELLER. That was a restoration grazing system which had four pastures. One of the pastures rested every year. We looked at the rested area and all the perennial grasses were grazed right to the ground level by horses. There were no cattle. The fact that you could not then regulate numbers of wild horses with respect to the grazing management system then negated the ability of the grazing management system to be a good, useful technique of maintaining proper use on the rangeland area.

Senator REID. Dr. Tueller, I will ask you the same question I asked the last panel of witnesses or anyone on the panel that wishes to address an answer.

The rangelands that we have seen pictures of and the testimony we have heard even to this point, the rangeland has been devastated, lots of it. We have heard testimony that there is no longer competition from antelope or deer, no cattle.

Why isn't there more concern about what is happening to the rangeland and the animals on it, the horses?

Dr. TUELLER. Well, I think there is a lot of concern at least by a lot of my colleagues and people that I know, but lack of opportunity to control the numbers of animals out there.

Senator REID. How would you say we should control them?

Dr. TUELLER. Well, I think that when there are too many animals, we simply have to remove them.

Senator REID. Where do we take them?

Dr. TUELLER. I don't know if I want to get into that can of worms or not. But I think that they have to be removed and sold, disposed of humanely, whatever it takes, adopted out and so forth if you're talking about wild horses, and cattle, we ship them.

Senator REID. We're only talking about horses here. As you have heard, you cannot adopt them out. We have too many horses and not enough people wanting them.

Would anyone else like to answer that question? Yes?

Dr. KIRKPATRICK. Sir, it's not a lack of concern. It's that the concern is focused on the symptom of the problem, which is overpopulation. It is not focused on the problem which is reproduction.

Senator REID. From a Nevada perspective, we had some people from Minnesota come in and it was a disastrous program. From a public relations standpoint, it did far more harm than good. Your partner there, Dr. Grandy, was kind in saying how the program worked out. I mean, it was awful.

Now, Dr. Grandy comes and said, well, we have a program that will work. You could do it every 2 years. Well, we can't do it every 2 years. We have to be realistic. We have to have some realism in this program. We are not going to be able to bring the horses in and inoculate them every 2 years. Some can be done by helicopter, but again I think you have to be realistic about that. How are you going to get the same horse every 2 years?

Do you have a contraceptive that will work?

Dr. KIRKPATRICK. Yes, sir.

Senator REID. Tell me what it is.

Dr. KIRKPATRICK. Immunocontraception. The horses are simply vaccinated. It is still in its infancy. Less than \$20,000 has been spent on the research by the Park Service to date, but it is highly successful being put into management modes in two national parks. With further development, it can be built into something where the horses are inoculated for longer periods of time with a single inoculation. It is the cutting edge of contraceptive technology. What you experience in Nevada was kind of a Model T in technology.

Senator REID. So, what you're saying is this final thing that Dr. Grandy talked about could work.

Dr. KIRKPATRICK. Yes, sir.

Senator REID. And how expensive is it?

Dr. KIRKPATRICK. Less expensive than capturing animals and placing implants in them. I cannot give you a precise cost because we're in the infancy of developing this vaccine.

Senator REID. Let's say we liked your program. When could we start using it?

Dr. KIRKPATRICK. Probably within 24 months.

Senator REID. But by then we are going to have on the range, at the rate we are going in Nevada, 70,000 horses.

Dr. KIRKPATRICK. This immunocontraceptive approach was suggested in 1985 and ignored by the Bureau of Land Management.

Senator REID. How much research money would it take to develop this program?

Dr. KIRKPATRICK. At this particular point, we are probably guessing around \$200,000 to \$250,000.

Senator REID. We spend that much in the Palomino pen in 3 months.

Dr. GRANDY. That's right.

Senator, if I might say something. There are two problems here it seems to me. One is the immediacy of the situation that we are currently dealing with. No one doubts the tragedy that is going on at Nellis and the need to take effective action to do something about it. But we are looking at developing a program that can help these horses that can be part of an integrated program that can go

on for the next 5, 10, 15 years and meet the desires of people for wild horses and meet the needs of rangelands.

I think one of the things that we need to say here is that BLM needs a comprehensive management strategy for each area. No two areas are alike. No two herds are alike. We need detailed strategies that take into account the variables and differences and the needs for grazing land for horses, for wildlife and for domestic livestock.

Senator REID. Dr. Tueller, let me ask you a question here.

From your testimony, it appears that in Nevada anyway, the monitoring of rangeland conditions has been standardized by a professional peer group known as the Nevada rangeland monitoring task force. Has the BLM been a member of this task force?

Dr. TUELLER. Yes; they have.

Senator REID. Why, if they abide by the task force standards, do you think the BLM has such a difficult time gathering solid monitoring data and gaining acceptance for its carrying capacity decisions?

Dr. TUELLER. Well, I think it is because they have an awful lot of land and few people to gather data. For example, they may have in one large allotment that is maybe, say, 40,000 acres only two or three key areas. Often this is not enough data to be judged scientifically. Then it can easily be challenged. And this is one of the problems they have because the amount of monitoring data that they can gather can be easily challenged in court and therefore it doesn't hold up. Then they have no recourse to say that the monitoring data, in fact, shows that overgrazing is taking place and we need to do something about it.

Senator REID. Senator Domenici, I will be real quick. I am sorry to have taken so long here.

Dr. Conley, are population models of horses and burros being used anywhere as a tool for herd management?

Dr. CONLEY. At the present time, I know of no herd management area where population models are intimately involved in the management program.

Senator REID. Isn't this a basic matter of control? It seems to me.

Dr. CONLEY. Population models that are available are quite sophisticated and they are adequate to the task. What is not adequate to—

Senator REID. They are inadequate did you say?

Dr. CONLEY. They are adequate.

Senator REID. That's what I thought.

Dr. CONLEY. They are good enough at this point, and they could be better.

Senator REID. Why do you think this program of modeling would be applicable to wild horses and burros?

Dr. CONLEY. It is applicable to wild horses and burros partly because we know how to do the modeling and horse populations are easy to model. Horse populations are relatively easy to gather appropriate data from if you have competent people and you have the resources to do the work.

Senator REID. What capability would population modeling give the BLM that it does not currently have?

Dr. CONLEY. Population modeling and the related analyses that go with the modeling would allow the BLM I think to provide credibility for the figures that they are constantly presenting—

Senator REID. Would modeling—I'm sorry, Doctor.

Dr. CONLEY. I say the figures that the BLM present are constantly being challenged, and that's why I refer to the credibility issue. It seems to me that—

Senator REID. Would modeling enable the BLM to predict the growth rates of horse herds and the number of animals that need to be removed to maintain a certain herd size?

Dr. CONLEY. The answer to that question is an unequivocal yes, provided you are working with specific herds and provided you are working with reasonable field data.

Senator REID. What would it cost on, say, a per horse basis, to develop a population model? I guess what I'm saying is how much to develop a modeling procedure for this horse problem we have.

Dr. CONLEY. Senator, something on the order of \$75,000 or \$100,000 a year would get you a modeling and an analysis on the wild horses for the entire Western United States that would work reasonably well.

Senator REID. And you could do that.

Dr. CONLEY. Yes, sir.

Senator DOMENICI. Doctor, I understand the need for additional scientific information.

Senator REID. Could I ask just one last question?

Senator DOMENICI. Sure.

Senator REID. How long would it take to develop a model?

Dr. CONLEY. I could give it to you tomorrow. We have been presenting these short courses to the Bureau of Land Management personnel for 15 years. They have the models. What they do not have is the expertise and the capabilities to make best use of them at this point.

Senator REID. And that could be upgraded for \$75,000 to \$100,000 a year.

Dr. CONLEY. Oh, easily.

Senator DOMENICI. Let me just ask, Doctor, you say we need additional scientific information, and I tend to agree with you. The last questions clearly indicate that we are aware of one significant tool.

But let me ask you as of right now, if the BLM plans to close two sanctuaries—and you're aware in our State we have a very successful prison program. I think it is successful because there is a side benefit that seems to be rather significant that the prisoners who train the horses seem to get a great deal of therapy out of the process. Nonetheless, we have closed one and the one down by Las Cruces where you live is next. What happens if we do that, close the sanctuaries, close the prison related facilities? What have we solved?

Dr. CONLEY. Senator, if you take the long view of something like this, if you just guess that there are 50,000 horses in the West, and the populations are increasing something on the order of 10 percent a year—and each horse population is different. Some are increasing faster, some slower—then you are looking at having to find places for 5,000 horses a year on the average. Sanctuary programs will

quickly fill up at that rate. Prison programs will quickly fill up. That's not the solution.

Senator DOMENICI. Yes; but they are canceling them. We are not going to have them.

Dr. CONLEY. But even if you don't cancel them, they are still not going to be a long-term solution. It's a temporary kind of fix because the horses coming in at one end are coming faster than the horses going out in the case of the sanctuaries where they are put out to die eventually, in the case of the prison programs where they are halter breaking the horses and then putting them up for adoption. It can't be a long-term solution.

Senator DOMENICI. But nonetheless, are you aware of the programs that I have referred to? Do you think they are successful?

Dr. CONLEY. I am very aware of the programs that you referred to, particularly the prison program down in Las Cruces where that prison is just close to my home. It receives a lot of publicity. I think the publicity is generally good. I suspect that it is perhaps better for the public relations and for the prisoner program than it is for the horse program.

Senator REID. Heaven knows we need some. [Laughter.]

Senator DOMENICI. Well, you're an expert on the horses, but those who are expert on the prisoners say that it is also good for the prisoners.

Dr. CONLEY. Yes, sir; yes, I'm agreeing that it is good for the prisoners and the prison program, and I am suggesting it may be less good for the horse program in the long view.

Senator DOMENICI. I see. You stated in your theme of credibility that the goal is to develop the capability within the agency to conduct the best data gathering and analysis possible. You indicate that they ought to be doing that. We have hit on one, the modeling and the capacity to utilize the modeling, which you have just described to the chairman. What other scientific data should they be acquiring?

Dr. CONLEY. Senator, it seems to me that the field of wildlife management and population biology is very sophisticated in biology. We know how to do a lot of things, and there are people out there who know how to solve every problem we have in parameter estimation in the horses and the modeling programs. It is not a matter of gathering new data. It is not a matter of new theory. It is a matter of bringing the right people together in the same place and solving some of these problems. We can solve those problems I think if we could approach it from that standpoint.

Senator DOMENICI. Well, let me ask you because I very much want your reasoning. I am not familiar with my friend from Nevada's Nellis range. I have been to the air base and maybe I looked off across and maybe I saw the range.

But you heard the description of the problem. You know the estimates of the cowboy and others. You know the parameters of error, but you have sort of an idea. Short term I assume that the science we ought to have and the expertise that ought to be in the Bureau is not going to help solve that problem, is it?

Dr. CONLEY. No, sir.

Senator DOMENICI. What do we have to do to solve that problem?

Dr. CONLEY. Well, there are other people here who will be on the program today who can certainly speak more authoritatively on the Nellis situation than I can. I think the history of the Nellis herd would suggest why we have the problem that we have right now.

When I was with the first National Academy of Sciences panel on horses and burros, we repeatedly asked agency personnel while we were on field trips to take us in the field and show us areas that were being devastated by horse populations and horse populations only. During the 4 years of that committee, we never saw a single area that was like that, and we made that point repeatedly.

Senator DOMENICI. Did they take you to areas or did they not take you to any?

Dr. CONLEY. It is not hard to find areas of the West that are overgrazed. It is difficult to find areas of the West that you know were overgrazed by horses and not by sheep and cattle and other domestic livestock. It is a combination problem in this respect.

Nellis is unique in that it is fenced. The horse population has not been heavily managed. It has been growing at whatever rate of increase it grows. Arguing over whether the rates have increase are high or low in horse populations is irrelevant. The fact is they are all growing positively, and it is only a matter of time before, in some areas like Nellis where they are fenced and they stay in those isolated pockets, those horses increase and can increase to the point where disaster results. I think Nellis is a good example of that.

The much touted notions of fertility control in horses are not likely to make the populations go down. The best estimates we can make with horse populations that are increasing on the order of, say, 15 to 18 percent per year—and I think we do have some populations, particularly in Wyoming that may be going up that fast—are that you will have to sterilize something 85 to 88 percent of all the females in the population all the time in order to keep that population from continuing to increase. Whether that can turn out to be practical or not is a debatable question, but those figures are very high and I think it is going to be hard to achieve.

That suggests to me that the adoption program is going to have to continue to be in place. We should probably take a look at bringing in only those animals that are adoptable, and that suggests the juveniles, the foals that are 6 months or so, 8 months old. And in combination with that, once a herd is brought to a level that the managers and everybody can agree on is an appropriate level, then the combination of rounding up the younger animals, which has a dramatic effect on rates of increase in the mechanics of the population, as well as the immunocontraception that Jay Kirkpatrick and John Taylor have been working with I think has some potential for controlling these herds in the field.

Senator DOMENICI. Thank you very much.

Senator REID. Dr. Kirkpatrick, would you comment on the statement made by Dr. Conley, his last statement, about some of the programs of sterilization, et cetera wouldn't work?

Dr. KIRKPATRICK. Yes; really fertility control should not be looked at as a device to reduce populations. It should be looked at primarily as a device to maintain populations once you have a target number. This is true with long-lived animals like horses in any case.

He is very correct. It takes a tremendous amount of resources and time to bring a horse population down through contraception of any kind. But once you reach a target population, then contraception has its value.

Senator REID. But it goes without saying the problems we have. We have no contraception program going. We do not have proper modeling or, in fact, any modeling at this time to determine what the numbers are. Could any of the four of you tell me something good about the horse/burro program?

Dr. KIRKPATRICK. I would like to and that is with regard to modeling as well. The Park Service has already picked up that challenge, and they are modeling right now their horses on Assateague for a fertility control management program. They understand the need to model. They hired a wildlife biologist just to do that modeling.

Senator REID. Of course, they have a significantly smaller number of horses they are dealing with.

Dr. KIRKPATRICK. That is correct.

Senator REID. It is really difficult to compare to the two, isn't it?

Dr. KIRKPATRICK. Well, not as far as methodology goes.

Senator DOMENICI. Does anybody else have anything good to say about it?

Dr. CONLEY. I think it is worth saying that when I first started teaching training courses for the Bureau of Land Management and the Forest Service 15 years ago, the level of sophistication was about one-sixteenth of what it is now. So, in fact, it is getting better. They are hiring new people. They are hiring young people. The State of Nevada has several wildlife biologists now. It has district horse specialists. As we work with these people, they are much easier to train, much easier to talk to about the needs for collecting the proper field data and so forth. So, the program is getting better, but it is getting better slowly.

Senator REID. In the meantime, we keep getting more horses.

Dr. CONLEY. That is exactly right.

Senator REID. At the BLM, the people that are involved in the program are doing the best they can. I don't know if it was Senator Domenici or Senator Nickles who said that—it was you—we don't have a plan.

Senator DOMENICI. Yes.

Senator REID. Frankly, the legislative branch of government is not the one that should do the planning, but I think we are going to have to do a little planning, Senator Domenici, you and I and Senator Nickles need to get together and at least set some direction. I think we are going to have a modeling program when this appropriations bill comes out, and I think we are going to do something on contraception. I think that is at least what we are going to do.

I thank all four of you very much for being here.

PANEL 3—CONSERVATION

STATEMENT OF DAN KEISERMAN, CHAIRMAN, NEVADA STATE COMMISSION FOR THE PRESERVATION OF WILD HORSES, CARSON CITY, NV

ACCOMPANIED BY:

CATHY BARCOMB, EXECUTIVE DIRECTOR, NEVADA COMMISSION ON WILD HORSES

DAWN LAPPIN, DIRECTOR, WILD HORSE ORGANIZED ASSISTANCE, RENO, NV

ALAN O'NEILL, SUPERINTENDENT, LAKE MEAD NATIONAL RECREATION AREA, BOULDER, CITY, NV

INTRODUCTION OF PANEL 3

Senator REID. We are now going to have a panel that is called—the first one was called management programs; the second, science, and it really was an impressive group of individuals. The third is called conservation. We are going to have Dan Keiserman, chairman of the Nevada State Commission for the Preservation of Wild Horses, and he will be accompanied by Cathy Barcomb, executive director of Nevada Commission on Wild Horses. We are going to have Dawn Lappin, director of the Wild Horse Organized Assistance from Reno; Alan O'Neill, superintendent of Lake Mead National Recreation Area, Boulder City. Good morning, everybody.

— We have a couple of films we are going to see quickly here. It is my understanding that one is set up to show a segment on "20/20" that won some kind of an award. And then we are going to have one that Dawn Lappin wishes us to see.

Senator Domenici, I know that you have a busy schedule. Just to alert you before you leave, the superintendent of the National Recreation Area is here. Lake Mead is so devastated with burros, that we have a program that my wife and others have worked on to plant in some of the coves there trees and other plants and shrubs. We cannot do it. Do you know why? The burros eat it before it can be planted. We have such a problem there. That is one of the reasons we are meeting here to see if there is something we can do to get back a little greenery around this great lake that we have.

Anyway, I appreciate your coming.

Senator DOMENICI. Burros?

Senator REID. Yes; burros. There are thousands and thousands of them. We will find out the extent of them today.

Senator DOMENICI. Mr. Chairman, I have to leave, but I want to thank you for having the hearing.

Obviously, we have a problem, but it is a different problem than you. We do not have a lot of the wild horses or wild burros, but we have been kind of habitat State in that we have had three facilities that the Bureau has used. I am not here in a parochial setting to try to beat up on Mr. Jamison to keep out three facilities operating.

I would like to join with you in doing something constructive about this program. It was started with a great deal of enthusiasm and interest, and it has dwindled on all sides. There were many citizens groups that were tremendously enthusiastic about the program, and I think you have some of their leaders here. They have

to get more interested in this program and become bigger participants or the adoption program is not going to work.

Senator REID. I have criticized the BLM, but it is not from the standpoint they are not trying. It is just that they have no help. They are really hamstrung with lack of resources. And that is certainly brought out by the last panel, and we will see what the rest of the day brings out.

Senator DOMENICI. Thank you very much.

Senator REID. Thank you for your interest.

We are going to have a little film now, if you don't mind. Dawn, how long is your film?

Ms. LAPPIN. The commission film is 12 minutes.

Senator REID. Good.

[Videotape shown.]

Senator REID. While we are loading the film, could you tell us what this film is about that we are going to see for 10 or 12 minutes?

Ms. LAPPIN. The film I am told came from Nellis Air Force Base. However, I think it does show some of the range conditions down there, but I do not believe that it adequately reflects what Mrs. Barcomb and myself saw a week ago on Nellis. That devastation is not on that film because it was not cleared by the military.

STATEMENT OF DAN KEISERMAN

Senator REID. The panel that we have today is, as indicated before, Dan Keiserman accompanied by Cathy Barcomb, Dawn Lappin, and Alan O'Neill. We will first hear from Dan Keiserman. Please proceed, Dan.

Mr. KEISERMAN. Senator, thank you very much.

I think everyone has received a copy of the information requested of us, and in order to conserve time, unless the Senator or anyone else would like for us to read it, we will just let it stand on its own merits.

Senator REID. Would you summarize your statement for us?

Mr. KEISERMAN. Basically this commission was formed by virtue of a request by a man by the name of Leo Heil who granted money or bequeathed money in his will to the State of Nevada for the preservation of wild horses in the State of Nevada.

Senator REID. How much money did he leave?

Mr. KEISERMAN. Originally it was approximately \$400,000. It lay in interest bearing accounts for many years with nothing being done with it and accumulated to a point to where it is now approximately \$1,100,000.

This commission is mandated by the State of Nevada to spend no more than the interest that that amount of money earns each year. The amount that we spend is approximately \$100,000 a year, which includes the grants and all expenses.

We attempt to do a number of things. The grant program is very important to us. In addition, we try to enter into the land use planning programs of the Bureau of Land Management. We try to coordinate with other Humane Society interests that pertain to wild horses. We have even put on a forum trying to bring together numerous philosophical, medical, and governmental agencies trying to

get a more cohesive cooperative effort going to benefit wild horses, especially in the State of Nevada.

We feel that the Bureau of Land Management has come a long way here of recent times. They are doing a much better job now than they were before although they are constrained by the amounts of money that they have available to them. I think it has already been mentioned that they have a budget consisting of approximately 18 percent of the moneys available to try to solve a problem that is approximately 75 to 80 percent, which means they are receiving only about 25 percent of the money needed.

PREPARED STATEMENT

We do feel that, with some of the other people like Dr. Walt Conley and other people that have been up here today that we have met with, that there are some solutions that can be had, that the programs that are now in place and the improvements that can be made on those programs will definitely work.

If you have any questions, we will be more than happy to answer them for you.

Senator REID. Mr. Keiserman, also you're appointed by the Governor to this position that you hold as chairman of the Nevada State Commission for the Preservation of Wild Horses, as I understand.

Mr. KEISERMAN. That is correct.

Senator REID. You are a real estate developer.

Mr. KEISERMAN. Builder, contractor, developer in Nevada.

[The statement follows:]

STATEMENT OF DAN KEISERMAN

The Commission was created as a result of a bequest by Mr. Leo Heil. This bequest, the bulk of his estate was left "to the State of Nevada for the preservation of wild horses in Nevada." During the 1970's, the Nevada Governors appointed various committees to investigate how the money should be spent to carry out the intent of the Heil bequest, preservation of wild horses in Nevada. Legislation known as State Senate Bill 483 was adopted by the 1983 Nevada Legislature, creating the "Nevada Commission for the Preservation of Wild Horses."

After passage of SB 483, Governor Richard Bryan appointed three individuals to fill the positions created to serve as the "Wild Horse Preservation Commission." These individuals were chosen to represent their respective positions as described below. The Commissioners appointed the Executive Director, opening lines of communication with the Bureau of Land Management and other agencies interested in and pertaining to wild horses, as well as formulating policy and regulations in the management of the Heil Bequest.

Upon urging of the Commission, the 1989 Session of the Nevada Legislature expanded the Commission from 3 to 5 Commissioners. The Commission now includes the following representations:

- (1) A representative of an organization whose purpose is to preserve wild horses and whose headquarters are in Nevada."
- (2) "An owner or manager of property used for ranching."
- (3) "Three members of the general public who: (1) are not engaged in ranching or farming, and (2) have not been previously engaged in efforts to protect wild horses."

The purposes and functions of the Commission are to fulfill its statutory obligations as an advocate for wild horses through the funding of educational, promotional, and habitat programs and projects; participating with federal agencies in the Land Use Planning Process to insure sufficient habitat and viable populations; serving as a clearinghouse for information to the general public and the news media, and between the State of Nevada and the federal agencies responsible for the management of the wild horse programs, on all aspects of wild horses; and coordination with various state and federal law enforcement agencies with information regarding illegal activities against wild horses.

The Commission serves its most important, but least understood, function in an administrative capacity to achieve these objectives. The only way to preserve viable populations of wild horses and sufficient habitat is by participating in the Land Use Planning Process. This process seldom garners headlines, is labor intensive, and complicated to understand. The Nevada BLM covers 6 Districts, 12 Resource Area's, 111 Wild Horse and Burro Areas, and approximately 3,000 grazing allotments. It is important to remember that 87% of Nevada is public land.

The grant program is an important function of the Commission, second only to the participation in the Land Use Planning Process. The Commission has actively initiated requests for funds from appropriate agencies and individuals, when the benefits to wild horses were deemed significant. The Commission's focus in reviewing the grant proposals is similar to that of private foundations, wherein the Commission is looking for the most benefit from the investment. Previously, the Commission had only one grant fund. All monies were placed in the Heil Bequest Trust Fund which limited the Commission in its funding of projects for wild horses in Nevada. With the passage of Nevada State Senate Bill 237 (Attached Exhibit 1), in the 1991 Session of the Nevada Legislature, the Commission has created another fund for the preservation of wild horses. In the future, the Commission will augment the grant program with private foundation funds. This will expand the funding capabilities of the Commission beyond its present capacity.

In addition, SB 237 expanded the State Multiple Use Advisory Committee on Public Lands to include the Commission. The Advisory Committee previously had representatives from all public land users, except wild horses. The Commission is confident that input from a wild horse advocate will provide balanced representation in matters that ultimately affect wild horses and/or their habitat.

Prior to the passage of SB 237, state involvement in the wild horse program was non-existent between federal agencies and the Nevada Department of Wildlife. This legislation provides for the inclusion of the Commission in communications involving the Department of Wildlife regarding wild horse issues, the importance of which has been to recognize wild horses as endemic to the State of Nevada's wildlife resources. The Commission feels that, except for consultation and recommendation purposes any other involvement by the State in the management of the federal wild horse and burro program can not be justified.

The courts have reiterated that "wild horses shall be managed where they existed in 1971." The issue of the numbers of wild horses that will be managed is still not established. According to the Washington office Bureau of Land Management Instruction Memorandum, which was prepared to assist the State Directors with compliance of the June 7, 1989, Interior Board of Land Appeals decision, the wild horses must be managed to "achieve and maintain a thriving natural ecological balance on the public lands." Individuals, groups, organizations, and governmental entities all have opinions or interests regarding these animals and their management. In the wild horse and burro program, Nevada BLM should encourage coordination and support to accelerate its program initiative. Specifically, all interests need to interject positive action into wild horse and burro management, rather than creating management by reaction.

The State of Nevada has the largest population and percentage of wild horses in comparison to any other State in the United States. Approximately 80% of the total population reside in Nevada. The major problem with the management of these horses is that the Nevada Bureau of Land Management only received 18% of the total funding for the wild horse and burro program in the last fiscal year. The largest percentage that the Bureau has received was only 25%. This is grossly inadequate to even attempt to manage a program of such magnitude as the wild horse and burro program. The BLM has received a mandate from Congress as a result of the 1971 "Free Roaming Wild Horse and Burro Act" to manage these herds but without the funding necessary to implement the program the proper results cannot be achieved.

cc Nevada is in the midst of a crisis situation, being compounded by five years of western drought. The crisis is manifested by the current situation of the wild horse herds on the Nellis Air Force Range. Overpopulation, five times the estimated desirable carrying capacity, from lack of monitoring, control, the resulting gathering, has resulted in overgrazing in conjunction with limited water supplies. Deaths documented by BLM census data which, if accurate, documented the death of approximately 2,000 horses in 1990. Furthermore, the current data indicates virtually no yearlings (horses of approximately one year of age), and very few two year olds. One may infer from this information that this crisis has been ongoing for at least two years. Lack of monitoring data results in appeals when gather plans are written. By the gathers being delayed it has resulted in this ongoing critical situation happening in Nevada. Something must be done.

An intensive monitoring program involving studies of grazing utilization, trends in range condition, actual use, and climatic factors, is required to determine the appropriate numbers of wild horses to be permitted on the public lands, as well as providing sufficient monitoring, reducing controversy and appeals from other interested parties. In our opinion the following steps should be taken.

1) Trained and qualified personnel are needed with background in wildlife and range management, along with specific training in wild horse behavior and management to monitor and implement the wild horse and burro program.

2) Habitat protection to facilitate the establishment of a thriving natural ecological balance.

3) Development of sound census taking techniques to determine as accurately as possible the populations of wild horses on the public lands, both for management and population control.

4) Develop vegetative monitoring programs that include:

a) Actual Livestock Use

b) Actual Use Reports

c) Season of Use by Wild Horses

d) Season of Use by Livestock

e) Seasonal Census...showing where the majority of wild horses graze during seasonal yearly movements.

f) Use Pattern Mapping

g) Location of water used by livestock and wild horses.

h) Map of the Herd Management Area in relationship to the allotment that shows distribution of horses, livestock, and ceter.

i) Monitor and document wildlife usages.

5) Combine and analyze the data to determine who consumed what, when, and where.

6) Establish the appropriate management levels that should be in each herd management area to achieve a thriving natural ecological balance.

7) Increase or reduce the populations of wild horses on the range to establish a thriving natural ecological balance.

8) Using fertility control methods to be determined through the range study programs for controlling the population of wild horses in Nevada. Implement those programs throughout Nevada as they apply to each separate herd area.

9) Develop a marketing program to establish a workable adoption program for those adoptable wild horses removed from the range. Captures and removal of wild horses should be synchronized with availability of the market for different seasons of the year.

10) The office of Chief of the Division of Wild Horses and Burros should be located in the area where the majority of the wild horses exist in order to facilitate the management of the various entities of the wild horse and burro program.

11) When reductions in numbers of livestock use are determined necessary to restore overgrazed rangeland, reductions must be taken from actual use not preference.

To protect vegetation from overgrazing and to maintain healthy animal herds, it is necessary to control population levels of all animals on the public lands. One use need not be eliminated for the use of another. Through monitoring, "Appropriate Management Levels" (AML) need to be established for multiple use of the public lands. Livestock can be managed through permits limiting the numbers of cattle, sheep, and other domestic animals by seasons and by areas of use. Wildlife numbers are managed by state fish and game departments. Attempts have been made to manage wild horse numbers through removal of excess animals. Since the passage of the Wild Horse and Burro Act of 1971, it has become evident that this type of management for wild horses and burros does not work.

The Commission recommends to the Congress of the United States that the Bureau of Land Management establish in Nevada not less than four nor more than six management areas for herds of wild horses in order to conduct studies during the fiscal year 1992-93, for controlling the population of wild horses in the Nevada. (See Attached SB 237). The results of those studies need

to be analyzed and after careful planning; implemented as needed in various herd areas for fertility control of the wild horse populations. The manipulation of wild horse herds for adaptability is not acceptable, they should be managed for adaptability.

Concurrently, the Commission will review the cost, effectiveness and humaneness of alternative proposals for managing wild horses in Nevada, and take any actions necessary to evaluate these programs which are proposed before they are carried out and also monitor these programs when they are implemented. The Commission shall, based on its investigations and review of the various programs proposed, submit its recommendations for controlling the population of wild horses in Nevada to the Congress of the United States, the Bureau of Land Management, and the 67th session of the Nevada Legislature.

In conclusion, sufficient monitoring, and decisions based on that monitored data reduces controversy and appeals. The BLM in Nevada appears to be willing to seek the data needed, unfortunately the funding necessary to gather, analyze, and make decisions has not been available. We urge Congress to review the allocation of funding in the Wild Horse and Burro program and to provide the State of Nevada with the appropriate share of funding commensurate with the percentage of wild horses in our state. If Nevada has 75% to 80% of the population of wild horses in the nation then Nevada should have at least 75% of the available funding to manage those horses (See Attached A.J.R. 28). The Commission would like to thank this Subcommittee for the opportunity to address this august body and will be happy to answer any questions any member of this Subcommittee would care to ask.

STATEMENT OF DAWN LAPPIN

Senator REID. We will now hear from Dawn Lappin. The film is ready. Would you like us to show that now?

Ms. LAPPIN. Yes, please.

[Videotape shown.]

Ms. LAPPIN. Thank you very much for the invitation to appear before you today. I have presented my testimony. I will summarize it.

Senator REID. Please.

Ms. LAPPIN. Thank you.

In Nevada, over the last few years, a monitoring program has been devised that uses the vegetative resource to develop the monitoring program. It is limited in the fact that the monitoring has required manpower and money, most of which, as you know, in Nevada is limited. Given that insufficient data collected in the preceding years, we must start all over again. What the monitoring will show is what the ecological condition is and how many animals it will support.

It is clear at this point that it is the monitoring that is going to bring about the credibility of the Bureau in order to continue the program as a successful program and improve that.

I have made four or five recommendations that I feel reiterate what has been heard today.

No. 1, that the Bureau needs to establish expertise in the wild horse specialist position. That is No. 1, wildlife management, No. 2, range and additional in-house training in capture, animal husbandry, and population dynamics.

No. 2, protect the wild horse habitat until all these monitoring programs can bring in that data.

No. 3, develop sound censusing techniques.

No. 4, develop vegetative monitoring programs where there are none and increase those where there are monitoring programs already set up. The seasonal use can be used to develop use pattern mapping.

Combine all the data from the livestock use, wildlife use, wild horse and burro use, and analyze who ate what, when and where.

Establish each grazing use at those levels, including the thriving ecological balance for horses.

Make multiple use decisions based on that data.

Develop a marketing program for the adoption program.

Develop consistent gentling prison programs that meet the objectives of placing the horses.

No. 11, evaluate consistency in the regulations and policies.

And No. 12, evaluate Nevada's manual instructions for the monitoring program.

One of the examples shown on that tape today Mrs. Barcomb and I saw last week, that waterhole has now been reduced to a mud footprint which approximately 12 to 2,000 horses were trying to drink water out of a hoofprint. We saw babies everywhere. We saw fighting of stallions, terrible injury of animals because they were brought into an area where, obviously, there was no space between the bands.

What has resulted from that is the fact that now in Reno we are receiving anywhere—the estimate is from 50 to 300 orphan colts brought off Nellis, those colts in varying degrees of dehydration, anywhere from 2 weeks to 6 weeks of age.

PREPARED STATEMENT

I think that the monitoring data shows that the reductions are necessary, but unfortunately the Bureau is running out of money and those horses are running out of time. They have approximately 2 weeks, maybe 6 weeks at the most before we have a massive die-off. If it wasn't for the rescue efforts of major portion of Nevada right now in the foal, we would have probably lost 100 percent of them.

Thank you.

[The statement follows:]

STATEMENT OF DAWN LAPPIN

My name is Dawn Lappin, Executive Director for Wild Horse Organized Assistance, located in Reno, Nevada. I went to work for Velma B. Johnston in 1971, and took over the organization upon her death in 1977. We have participated in every aspect of the wild horse and burro program. WHOA developed the guidelines for the Adopt-A-Horse Program and generated applicants screened applicants, placed animals, and did compliance from 1971 through 1979. We have served on District Advisory Councils, Stewardship, Coordinated Resource Management Planning, and Steering Committees. We have worked in capture operations, holding facilities, and censusing. Our priority is the preservation of wild horse and burro habitat on the public rangelands.

The successes and failures of the Bureau of Land Management (BLM) administration of the Wild Horse Act (PL92-195) can be directly linked to the political climate of the day. That climate is reflected in the field managers' decisions. The successes are limited historically because BLM did not accept the mandate of Congress and was convinced the Act would be amended or repealed. Correct home ranges were not identified, only limited censusing occurred, little protection was provided, and management by political dictate was the norm for Nevada.

The BLM arose out of the old Grazing Service under the Taylor Grazing Act, its policies and attitudes precluded the acceptance of interlopers, whether it be wild horses and burros, recreation, or wilderness; because these were seen as direct competitors to the management of livestock. The 1960's produced the first readjudication period that brought livestock numbers to the "estimated" carrying capacity of the range, with the leftovers going to wildlife. In 1971, with all forage allocated, the wild horses, no longer an extension of the livestock industry, were grazing on forage already overcommitted and allocated to other uses. By the late 1970's the Environmental Impact Grazing Statements (EIS) consistently pointed to over grazing; but rather than make a politically unpopular decision on livestock numbers, the managers maintained the historical preference and coined a new term called active preference, which was the actual numbers of livestock ran each year and averaged over a period of 3-5 years, the result of which became active use. Managers maintained historical use for purposes of loans and resale of deeded land; but for yearly licensing the permit was active preference. Since wildlife was not at reasonable numbers, the reductions were to come from livestock and wild horses and burros. The argument then and persists today is wild horses were to be maintained at 1971 levels, despite having basis in law. Livestock permittees appealed their reductions to the Secretary and the political decision was the agency could not reduce livestock based on a one time inventory, that data was insufficient to reduce livestock. Furthermore, additional laws enacted stated that even with sufficient data, livestock could not be reduced by more than 10% in any one year. That left the only reductions to come from the wild horse populations, whether they had damaged the range or not. Throughout the 1980's wild horses were reduced despite insufficient data, what little reductions were taken from livestock were popularly known as "paper cows" wherein, the livestock over use is reduced from historical preference, wherein wild horses are reduced on actual use. Numerous wild horse groups, wildlife, and environmental groups appealed decisions that maintained the status quo for livestock at the expense of other uses. The controversies peaked because the appeals by other than those within the livestock community were seen as "eastern

or outside" interference with western traditions and lifestyles. Their appeals are touted as "rights" our appeals are touted as thwarting good range management. This brief history brings us to the 1990's and vividly demonstrate the reason for distrust by the public of the managing agencies, as well as the inequitable policies and attitudes towards multiple uses of the public rangelands.

The successes are that recently a system of monitoring the use of the vegetative resource has been developed in the State of Nevada. It requires time, money and manpower. Its' limited use at this time demonstrates the agency is capable of measuring who ate what, when and where. It needs to be expanded. Given that insufficient data was collected in the preceding nineteen years, it is not realistic to believe that one or two years of monitoring will be enough to establish wild horses and burros at the thriving natural ecological balance the law requires. Nor is it the immediate remedy that competing forage users perceive to be necessary under the old theory of 1971 levels.

The massive reductions of the 1980's overburdened the adoption program and there is now sufficient evidence that the program was designed to fail in order to convince Congress that sale authority was necessary. When the public refused to accept the plot, the agency initiated the infamous "fee-waiver" wherein thousands of wild horses went knowingly to slaughter. The horses not lost in the fee-waiver fiasco still stood in feed lots and the removals continued without any concentrated marketing effort to increase the adoption rate. The Bureau accepted the humane communities recommendation that a "sanctuary" be set up for the unadoptable and feed lot horses. The agency allowed political intervention to override the setting of objectives and the contract was let before policies were even designed. The prison training program was another potentially viable program, but once again, political intervention caused three programs to be set up in one state; and at one time the Bureau was paying the State for wild horses it did not have because they had signed a contract to provide a specific number of wild horses in advance of any capture plan that authorized their removal as excess. Now the agency proposes to initiate numerous population control techniques, some of which have support. If the national groups seem less than enthusiastic to this "new" solution to a "perceived" problem; it is due mainly to the fear that once again the Bureau will jump in blind-eyed into a program BEFORE they are sure they have a problem. They have demonstrated this bent over the last twenty years.

It is clear before the national organizations and the public will support any attempt to amend the 1971 Act, the Bureau MUST prove there is a problem with the law and not the agency. To resolve that conflict the Bureau MUST:

- 1) Establish a level of expertise in the wild horse specialist that includes backgrounds in wildlife management, range management, and additional in-house training in capture and animal husbandry.
- 2) Protect the wild horse habitat to sustain their free-roaming status until the Herd Management Area Plans are written (Currently being fenced to facilitate livestock management).
- 3) Develop sound censusing techniques that are consistent in each herd area. Coordinate those census with other Districts where horses utilize more than one District.
- 4) Develop vegetative monitoring programs where there are none. Utilizing timed census, the seasonal use can be

used to develop use pattern mapping. (Who ate what, when and where).

- 5) Combine all the data from livestock use, wildlife use, and wild horse and burro use and analyze who ate what, when and where.
- 6) Establish each grazing use levels, including the thriving natural ecological balance for wild horses and burros.
- 7) Make multiple use decisions based on that data.
- 8) Apply management techniques a) population modeling
b) fertility control, c) reductions; or a combination of all.
- 9) Develop a marketing program for the Adopt-A-Horse Program
- 10) Develop consistent "gentling" prison programs that meet the objectives of the Bureau, not the prison.
- 11) Reevaluate consistency in regulations, policies with the 1971 Act.
- 12) Evaluate Nevada's manual instructions for national use.

An example of where monitoring took the back burner is on the Nellis Air Force Range in southern Nevada. Because it is inaccessible due to military activities, remote, and access difficult; hundreds of wild horses currently are at risk. Last Monday myself and Cathy Barcomb from the Commission for the Preservation of Wild Horses in Nevada, a State agency, travelled to Nellis to pick up what we thought were a few orphan colts that needed placement in the Adopt-A-Horse Program. What we saw was horrifying. Nearly a thousand animals stood around an area approximately one acre in size with the barely wet water hole in the middle its sole attraction. The strongest of the animals were the nearest to water, the weakest ringing the center. Despite the fact the Air Force is transporting nearly 17,000 gallons of water a day, it is not enough. There is only enough water to support 1020 wild horses and there are over five thousand. The weakest that cannot reach water will stand and starve because they are too weak to go the fifteen miles to forage. The stallions, because they are too close are fighting, the turmoil of the fighting is confusing the mares and they are in turn loosing or deserting their foals. Packs of coyotes circle the herds. Nearly 50 orphan foals have been brought to Reno, with a potential of 300. Horrible as it sounds now it is going to get worse and there is the potential of loosing most of the herd. Already those under three and over twelve are few, indicating a substantial die off over the past two years. The capture of excess wild horses on Nellis MUST continue until we have lowered the numbers to the available forage and water...YET THERE IS NO MONEY to continue the capture.

The Bureau must be provided the monies and the manpower to protect our nations resources and in turn they must be mandated to protect and manage them all equitably. Only a strong message from our Congressional Representatives will bring about fair play. Where wild horses and burros are causing ecological damage they must be reduced, but they must not be made scape-goats for all the range ills. I sincerely believe that through monitoring that has already been established and funding to expand it to other areas, the agencies, the permittees, the other resource values can resolve the conflicts to the betterment of the ranges and uses thereon.

STATEMENT OF ALAN O'NEILL

Senator REID. We are going to switch now from the Nellis range and Nevada generally to the Lake Mead Recreational Area, Alan O'Neill, superintendent.

Mr. O'NEILL. Mr. Chairman, as a field manager, I certainly sincerely appreciate the opportunity to come before you to talk about not wild horses, but burros as they relate to the resources of Lake Mead National Recreation Area. I have submitted for the record a detailed statement. Also I have submitted a packet of photographs which detail some of the impacts that I would like to submit for the record. I will proceed to summarize here briefly.

For those unfamiliar, Lake Mead National Recreation Area encompasses 1.5 million acres within its boundaries, more than 87 percent of which is land which contains a wealth of both natural and cultural resources. Lake Mead contains plant communities representative of three of the four American desert ecosystems, the Mohave, the Great Basin, and the Sonoran Desert. As a result of its location and interface of these three desert systems, Lake Mead contains a surprising variety of plants and animals. Most significantly, the 130 miles of Lower Colorado River basin, 40 springs, and numerous desert washes of the recreation area in our judgment contain great potential for protection and restoration of riparian and native wash communities which are the Southwest's most threatened plant communities.

As you know, the National Park Service is charged by its Organic Act of 1916 to protect and perpetuate those plant and animal species native to areas within the National Park System units.

For nonnative species such as burros, our policies provide for management of populations up to and including eradication whenever they threaten park resources or public health. Lake Mead is managed to provide for biodiversity.

Yet, unregulated burros are becoming a critical factor in determining the fate of Lake Mead's indigenous vegetative and wildlife populations. Thriving burro populations within the park come at the expense of our native wildlife. More than 1,600 burros range through the national recreation area. They produce rapidly with documented population increases of 20 percent.

Just this last several weeks we have been participating—I think this is the first time—in a burro census involving the Arizona portion of the park which involved three agencies, which is the Kingman resource area of the BLM and the Arizona Game and Fish, plus the National Park Service. What we are finding from our preliminary data from this survey is that our initial estimates of 1,600 are much less than what the actual population is, maybe by as much as 100 percent.

Because of the availability of water, burros tend to congregate on park lands. Extreme impacts from burros have been documented within the recreation area. These burros damage the land by compacting the soil and overgrazing the sparse vegetation, thereby destroying plant life and causing rapid erosion. Burros trample and destroy vegetation at springs, and muddy and pollute the water. This affects all the wildlife of the area, especially the smaller species which cannot range very far for their water sources.

In the Gold Butte area, overutilization by burros has completely eliminated the codominant plant, white bursage, from vast areas. Recent data from forage utilization transects indicate that many Arizona areas of the park are overutilized as well.

There have been many cooperative efforts with the Bureau of Land Management for burro management within the recreation area, including capture and relocation of hundreds of burros from the Arizona portion of the park in the 1980's and more than 250 from the Nevada portion in 1990. While these actions have helped to reduce impacts generally or to eliminate nuisance burros from specific problem areas, we continue to see the impact spreading and worsening.

The general problem and cooperative efforts with the Bureau of Land Management arises from our very different mandates concerning burros. The Bureau of Land Management has responsibility through the Wild Horse and Burro Act to manage burro herds in historically used areas on the public lands as an integral part of the natural system. Because of this responsibility, the BLM has different methods of measuring and standards for what constitutes impacts. National Park System lands are not subject to the Wild Horse and Burro Act. Instead, we manage these lands for the preservation and perpetuation of native species and consider burros to be a highly destructive exotic species. To realize our potential for natural resources preservation, we must eliminate burro impacts to the extent possible. We feel, however, that it is important to continue our cooperative relationship for burro management with the BLM.

In addition, we intend to prepare a burro management plan and environmental impact statement that will evaluate a range of alternatives to eliminate or reduce burro impacts. Further management will then be guided by this document.

PREPARED STATEMENT

In summary, Lake Mead National Recreation Area possesses outstanding natural resources that are threatened by increased burro utilization. Thriving burro populations are maintained at the expense of native plants and animals Lake Mead National Recreation Area was set aside to protect.

Thank you, Mr. Chairman.

[The statement follows:]

STATEMENT OF ALAN O'NEILL

With 1.3 million acres of land and 200 thousand acres of water, Lake Mead National Recreation Area (NRA) is the third largest area of the National Park System outside Alaska. While its name conjures up the image of water, more than 87 percent of its area is land containing a wealth of natural and cultural resources.

Lake Mead NRA contains plant communities representative of three of the four American desert ecosystems—the Mohave, the Great Basin, and the Sonoran Desert. As a result of its location and the interface of these deserts, Lake Mead contains a surprising variety of plants and animals. Some of these are at the outer limits of their ranges, including 45 species documented in the Newberry Mountains alone. There are 14 plant species within the recreation area under consideration for Federal listing as threatened or endangered, and an additional 14 species that may be so categorized pending further study. The recreation area is currently working with The Nature Conservancy to evaluate 4 rare plant species for which the recreation area may be the only place in which significant populations of these plants are protected.

Most significantly, the 130 miles of Lower Colorado River Basin, 40 springs, and numerous desert washes of the recreation area contains great potential for protection and restoration of riparian and native wash communities, the Southwest's most threatened plant communities.

As rapid growth continues in southern Nevada and throughout the desert Southwest, a protected area the size of Lake Mead NRA will become increasingly important in the conservation strategies for the native plants, animals and ecosystems of the Southwest. The recreation area has an immediate role in preservation of the desert tortoise in southern Nevada.

Current natural resource management programs are directed toward an inventory of park resources and development of a research program. There has been little information available in the past with which to measure impacts, resolve management problems or provide mitigation strategies for resource-impacting activities. Recently, the park has increased funding and emphasis on research and mitigation programs to enable the aggressive pursuit of its responsibilities in protecting Lake Mead's resources and providing regional conservation leadership. Continued high levels of burro use and the associated impacts within the recreation area, however, threaten the achievement of these conservation responsibilities.

The National Park Service is charged by its Organic Act of 1916 (16 U.S.C. 1) to protect and perpetuate those plant and animal species that are native to areas within National Park System units. To insure compliance, the Management Policies of the National Park Service (1988) state that the "primary objective in natural zones will be the protection of natural resources and values for appropriate types of enjoyment while ensuring their availability to future generations."

Concerning non-native species, National Park Service Management Policies provide that "management of populations of exotic plant and animal species up to and including eradication, will be taken whenever such species threaten park resources or public health and when control is prudent and feasible."

Feral burros are considered "alien" or "exotic" species to the Lake Mead National Recreation Area (NRA) region. They were introduced by prospectors in the late 1800's. Today, burros range through the majority of the Lake Mead National Recreation Area, with established herds in the Gold Butte, Muddy Mountains, and Eldorado Mountains of Nevada, and in the Black Mountains and Grand Wash of Arizona.

The incomplete data available indicates an estimated population of over 1,600 burros within the recreation area. The park currently is participating in a census of the entire Arizona portion of the park in conjunction with the Kingman Resource Area of the Bureau of Land Management (BLM) and the Arizona Game and Fish Department. This will provide complete and up-to-date population data for this portion of the park. Preliminary data from the survey indicates that initial estimates are much lower than actual populations. This experience is similar to the mid-1980s removal program at Death Valley National Monument, where 1,500 animals were estimated to live within the area, but 6,000 burros were eventually removed.

Burros reproduce rapidly and, having evolved in North Africa, they are highly adaptive to the desert regions of the American Southwest. They have no natural predators, and they are long lived—10 to 15 years—in the wild. Most females breed in the second year, and they have high survival rates for their young. Population increases of 20 percent per year have been documented for Death Valley National Monument and other western areas.

Burros tend to congregate around water holes and along the lake shore of Lake Mead and Lake Mohave. They damage the land by compacting the soil and overgrazing the sparse vegetation, actions that destroy plant life and cause rapid erosion. Burros trample and destroy vegetation at springs, compact the soils adjacent to the springs, and muddy and pollute the water with their feces and urine. This affects all the wildlife of the area, especially the smaller species which cannot range very far for their water sources. Desert bighorn sheep are known to avoid watering holes when burros are present.

Burros compete with native wildlife for a limited forage base and overgraze the sparse vegetation. Thriving burro populations within the park come at the expense of native wildlife. The estimated 1,600 burros in Lake Mead NRA each eat approximately 9.7 pounds of forage each day. That is 7.7 tons daily, or over 2,810 tons yearly. In an area of low productivity, that is a significant amount of forage.

Competition for forage is even more critical during hard times, such as the current 5-year drought. Burros do not have a complex digestive system like the native bighorn sheep. They can process their food more quickly, and if the nutrient content of the forage is marginal, burros obtain more protein, etc. simply by eating more food and speeding the digestive processing time. A bighorn sheep must remain selective and cannot increase the rate at which food passes through its system.

Lake Mead NRA is managed to provide for biodiversity. Yet burros are the major, unregulated herbivore, thus becoming a critical factor in determining the fate of Lake Mead's indigenous vegetation and wildlife populations, interfering with natural processes and the perpetuation of natural features or native species. It is our concern that plant production is severely impacted by burro grazing. Annual flower blooms are one of the most valued resources at Lake Mead and represent a stunning example of biodiversity. Studies at Grand Canyon National Park showed a difference in seed bank species composition between areas that were inhabited by burros and those that were not.

Investigations are currently underway to determine the status and distribution of four rare plant species within the recreation area. The Nature Conservancy has advised us that the recreation area may be the last refuge for viable populations for these species. Burro use within these areas is in conflict with long-term preservation goals for these plants.

Soils provide the foundation for a healthy ecosystem. At Grand Canyon National Park, research concluded that feral burros change the natural condition of park soils through soil compaction and soil erosion. Feral burros establish trail systems that result in extensive soil erosion, and this loss is intensified in areas with steep slopes and where desert pavement soils or microfloral crusts are worn away. All of these conditions occur within Lake Mead NRA.

Extreme impacts from burros have been documented within the recreation area. Numerous springs, such as Corral Spring in Nevada, have been severely trampled by burros. In the Gold Butte area, over utilization by burros has completely eliminated the co-dominate plant, white bursage, from vast areas. Recent data from forage utilization transects in Arizona indicate that many areas of the park within Arizona are as severely over-utilized by burros as the Gold Butte.

A number of "Environmental Protection Subzones" have been identified in the Lake Mead NRA General Management Plan, within which areas preservation of unique environmental features is the primary objective. One of these areas was set aside to protect the northernmost existing stand of palo verde trees, located in the Fire Mountain area of Arizona. This extremely valuable resource, relating to our biodiversity goals as stated above, has been extensively damaged by burros during the past three years, with a potential loss of scores of trees and possible long-term impacts upon recruitment or replacement of mature trees into the population.

The endangered desert tortoise is a species of special concern in Nevada, and possibly soon will be listed in Arizona. The draft Habitat Conservation Plan for Clark County, Nevada, suggests that a burro/tortoise competition study be included as a portion of the grazing competition research recommended within the plan. Based on observations within Lake Mead and studies elsewhere, competition for forage base within areas of overlap between burros and desert tortoises must be assumed.

In the Eldorado Mountains area of Nevada, burros were rarely seen south of Eldorado Canyon ten years ago. They now are routinely seen in Cottonwood Cove, 15 miles to the south, and were noted this spring in the Newberry Mountains, 30 miles to the south. Severe impacts to vegetation has been noted along the Lake Mohave shoreline in this area. This area is also the park's designated tortoise management area.

Additionally, burros create a public safety problem along park roadways. Two documented burro/auto collisions have occurred within the past two years along the Northshore highway.

In an effort to document burro impacts, the park constructed five, two-acre burro enclosures in the Gold Butte in 1990 and began a program of monitoring vegetation use by burros in that area. In 1991, the park assisted the BLM in completing vegetation-use transects along Lake Mohave in Arizona. The park also documented in 1991 the severe impacts to the palo verde stand mentioned previously.

Additional research begun in 1991 includes the burro census in Arizona mentioned above and a contract with the University of Nevada, Las Vegas, for a bibliography and summary of previous research elsewhere of burro impacts to natural resources. The park, in conjunction with the BLM and Arizona Game and Fish Department, also is preparing a proposal for burro herd movement studies and forage use studies in Arizona.

The first burro capture at Lake Mead National Recreation Area took place in 1979 when the Bureau of Land Management was asked to assist the National Park Service by removing 42 nuisance burros from the Katherine developed area on Lake Mohave. Through a cooperative agreement with the BLM, hundreds of burros were removed from the Arizona portion of the park in the 1980s.

The first removal in the Nevada portion of the park took place in 1988, when 70 animals were removed from the Echo Bay area of Lake Mead. Since then, small numbers of nuisance animals in other Nevada developed areas also have been re-

moved. Most recently, 254 burros were removed from the Gold Butte area by the BLM in 1990. The Gold Butte is the most heavily impacted area within the park with heavy trailing damage to soils and extreme impacts to the plant community that will take decades to recover.

As stated earlier, there have been many cooperative actions with the Bureau of Land Management for burro management within the recreation area. While these actions have helped to reduce impacts generally or to eliminate nuisance burros from specific problem areas, we continue to see impacts spreading and worsening. Because burros can increase their populations rapidly (20 percent per year) sporadic, low-intensity removals may only be capturing portions of those population increases.

There has been a general problem in cooperative efforts with the Bureau of Land Management arising from our very different mandates concerning burros. The National Park Service considers burros a highly destructive, exotic species. To realize our potential for natural resource preservation, we must eliminate burro impacts to the extent possible. On the other hand, the Bureau of Land Management has responsibility through the Wild Horse and Burro Act to manage burro herds in historically used areas on the public land as an integral part of the natural system. It is difficult to mesh these objectives over hundreds of miles of unfenced boundary. Additionally, the BLM has different methods of measuring and standards for what constitutes impacts. Its measurements and target numbers for removal are subject to administrative appeal through the Interior Board of Land Appeals (IBLA). Such standards, targets and administrative appeal process are not applicable to National Park System lands, where the Act does not apply.

The recreation area, however, feels that it is important to continue our cooperative relationship for burro management with the BLM. We have been encouraged by recent actions such as the Gold Butte burro removal in 1990. We also have been encouraged by the joint planning efforts in the Black Mountains, Arizona, with the BLM and Arizona Game and Fish Department. In that effort, the three agencies are looking across agency jurisdictions and treating the entire Black Mountain area as a planning unit. Through that effort we are coordinating the current burro census, and we are planning a joint monitoring and research program.

Lake Mead NRA staff intends to prepare a Burro Management Plan and Environmental Impact Statement that will evaluate a range of alternatives to eliminate or reduce burro impacts. Future management will then be guided by this document.

In summary, Lake Mead National Recreation Area possesses outstanding natural resources. It has potential to be a major conservation area for the Mohave Desert, and we are embarking on an ambitious resource management program. Burro impacts within the area are severe and are not lessening despite recent efforts. A substantial body of evidence from research in other desert areas indicates that significant burro populations are incompatible with natural area preserves. Burro populations threaten almost every component of our resource program. This issue must be resolved for Lake Mead to reach its conservation potential.

EMERGENCY REMOVAL OF ANIMALS

Senator REID. Mr. O'Neill, why hasn't the Park Service pushed for an emergency removal of these animals?

Mr. O'NEILL. We have been working with BLM in trying to get some emergency removals in certain areas, and that is what we accomplished this year in the Gold Butte area where we removed roughly 250 burros from that area. The problem that we have encountered is the funding for at least the burro part of the program has been inconsistent and not always timely in terms of responding to the problem areas. So, although we have had periodic removals, our populations continue to increase.

Senator REID. Tell me where the burros are. We start up at the Moapa area.

Mr. O'NEILL. We have burros all the way in the Muddy Mountains over to the Echo Bay area. We have them now along the entire area from Hoover Dam south now to the Newberry Mountains. This is within the last, I'd say, 6 or 7 years. We have had burros move south about 30 miles. We have them along the entire Arizona

side of Lake Mohave, and they have now moved into the Temple Bar area. Almost all areas of the park are now occupied by burros.

Senator REID. How many can the lake sustain?

Mr. O'NEILL. In terms of the National Park Service policy, if you were to strictly interpret the policy, our number would be zero because we treat them as an alien species. If the world were perfect, we would prefer not to have any burros within the recreation area.

Senator REID. Is that possible?

Mr. O'NEILL. It's possible.

Senator REID. Where did they come from?

Mr. O'NEILL. The problem we have is we are surrounded by hundreds of miles basically by an unfenced boundary. The BLM has herd management areas adjacent to Lake Mead, and obviously the burros during particular times of the year desire water, and the water available at Lake Mead is attractive to burros. So, roughly 80 percent, say, in that spring and summer period within those herd management areas find themselves on the shorelines of Lake Mead or Lake Mohave.

Senator REID. Why don't we have a problem with horses?

Mr. O'NEILL. I don't know why we don't have a problem with horses. We do have a couple of small herds, but I'd say one is probably maximum eight or nine, and another is probably less than that.

Senator REID. What comments do you get from park visitors about the burros?

Mr. O'NEILL. Well, the park visitors in many cases enjoy seeing burros because to the American public they're cute. They're attractive. Most of the public does not understand the ecological damage that the burros do.

Senator REID. This document, which we will make part of the record, documents what happens to the forage in the area. Isn't that right?

Mr. O'NEILL. Yes; it does.

Senator REID. You, in fact, have described vividly with these pictures one area where you have an existing stand of Palo Verde trees which is almost gone.

Mr. O'NEILL. Yes.

Senator REID. They eat the bark and everything right off the trees. Is that right?

Mr. O'NEILL. Yes; the bark is stripped, and that population has received some impact. But we also have concern about other rare and endangered plant species. We are finding through our inventories that Lake Mead is a refuge for many candidate species, not only the species that are now listed like the desert tortoise, but many candidate species. So, our concern is how can we manage to protect that biodiversity and still have burros within the recreation area.

Senator REID. The wildlife relies on natural springs for water in this desert area. Unfortunately, the burros, in addition to eating the plants thereabout that exist, also compact the soils. Isn't that right?

Mr. O'NEILL. Yes.

Senator REID. Muddy and pollute the water with feces and urine. Is that true?

Mr. O'NEILL. Yes; we have a major concern there with our bighorn sheep population. We probably have if not the world's most viable bighorn sheep population, certainly one of the top populations in the world, somewhere around 2,200 bighorn sheep. There is some competition in the use of springs between burros and bighorn sheep.

Senator REID. Bighorn sheep are natural to the area. Is that right?

Mr. O'NEILL. Yes.

Senator REID. How long will it take you to prepare this document you spoke of, the management plan?

Mr. O'NEILL. Right now we are trying to get it started in-house with our own resources, and we estimate that it would be about 1 year.

Senator REID. You need additional resources frankly.

Mr. O'NEILL. We have no funding for the management plan itself.

Senator REID. How much would it cost to do a burro management plan?

Mr. O'NEILL. Well, when Death Valley and the Grand Canyon went through theirs, of course, there was a lot of public concern, and this is a sensitive issue. Their planning processes involved a very extensive review and comment period.

Senator REID. How much would it cost?

Mr. O'NEILL. Our estimate is about \$100,000 by the time you finished the impact statement and review.

Senator REID. Mr. Keiser, what are some of the examples of projects or programs the commission has funded in recent years?

Mr. KEISERMAN. Senator, I would like for Mrs. Barcomb to answer that, if you don't mind.

Senator REID. Would you please do that, Cathy?

Ms. BARCOMB. We funded projects such as water developments, range monitoring, and public education.

Senator REID. And have they been successful?

Ms. BARCOMB. We believe so.

Senator REID. Dawn, would you tell me what the Wild Horse Organized Assistance is and how long it has been in existence? Tell me about this organization.

Ms. LAPPIN. I started working for Wild Horse Annie, or Thelma Johnston, in 1971. I took over her organization upon her death in 1977. We are basically a field oriented organization.

Senator REID. How is it financed?

Ms. LAPPIN. Through public contributions. We run a budget of about \$15,000 a year which pays for field trips into the range and numerous other programs.

Senator REID. You have all heard the testimony that has been rendered in the prior two panels today. Is there anything that any of you would disagree with as to what they suggest should be done?

Ms. LAPPIN. In fact, since I have worked in almost every aspect of the horse program from the monitoring to the adoption portion of it, I would state that No. 1, is the improvement of the credibility. Congress needs to instruct the Bureau that they either get on with the act and, in fact, implement the act as it was written, monitor the resources so that we can determine how much damage is being

done or whether it is being done or whether there is an overpopulation, and then get on with management.

I think the fact is that I agree wholeheartedly with certain segments of everybody that has testified.

Senator REID. You have no violent disagreements with anything that anyone has said then.

Ms. LAPPIN. The only violent disagreement I would have is the complete elimination of any species over the other.

Mr. O'NEILL. I would like to make a comment relating to burros.

Senator REID. Sure.

Mr. O'NEILL. There has not been the problem in burro adoption that there has been in the wild horse adoption. I would like to say that BLM has done an excellent job in managing the burro adoption program.

Senator REID. How long does a burro live?

Mr. O'NEILL. A burro lives, as I understand it, 10, 12 years generally.

Senator REID. Thank you very much for your testimony here today. I appreciate it.

PANEL 4—POLICY

STATEMENTS OF:

CY JAMISON, DIRECTOR, BUREAU OF LAND MANAGEMENT, U.S. DEPARTMENT OF THE INTERIOR, WASHINGTON, DC

DELOYD SATTERTHWAITE, RANCHER AND PERMITTEE, TUSCARORA, NV

NANCY DAVES, ANIMAL PROTECTION INSTITUTE, WASHINGTON, DC

JAMES DUFFUS III, DIRECTOR, NATURAL RESOURCES MANAGEMENT ISSUES, GENERAL ACCOUNTING OFFICE, WASHINGTON, DC

ACCOMPANIED BY ROBERT A. ROBINSON, ASSISTANT DIRECTOR

INTRODUCTION OF PANEL 4

Senator REID. Panel 4, dealing with policy as it relates to wild horses and burros. We will first hear from Cy Jamison, Director of the Bureau of Land Management, U.S. Department of the Interior; Deloyd Satterthwaite, rancher and permittee, Tuscarora, NV, appearing on behalf of Nevada State Senator Dean Rhoads. We will also hear from Nancy Daves, the Animal Protection Institute in Washington, DC, and James Duffus III, Director, Natural Resource Management Issues, General Accounting Office in Washington, DC.

We will first hear from Cy Jamison. Mr. Jamison, would you proceed with your prepared testimony?

STATEMENT OF CY JAMISON

Mr. JAMISON. Thank you, Mr. Chairman. I assume our prepared testimony is made part of the complete record.

Senator REID. It will be. We would like you to summarize it.

Mr. JAMISON. I will do that, sir.

The Bureau of Land Management and the Forest Service are entrusted with managing the Nation's herds of wild horses and burros, and we take this trust very seriously. The 1971 Wild Horse

and Burro Act provided for the protection, management, and control. Under Federal protection, the populations began to thrive. Excess animals were removed from the range to maintain a thriving natural ecological balance. Adoption and humane destructions were the two means of control prescribed by the act.

Since 1973, the BLM has placed over 100,000 wild horses and burros in the private care of individual adopters. However, Congress has forbidden the destruction in each of the last three appropriation acts, and we do not consider that as a viable option either. The adoption program has been somewhat successful. However, the prohibition on destruction and the appeal of our removal plans by wild horse interest groups have led to a serious overpopulation.

Today the program is out of balance and facing a crisis. The current population is approximately 50,000. The appropriate management level required by the Wild Horse and Burro Act to prevent deterioration of the range is approximately 30,000. We are currently running nearly twice the carrying capacity on the range. If we were doing the same with livestock, I'd probably be in jail.

The horses are doing damage in Nevada and to a lesser extent in Wyoming that will take decades to repair. We find mares with colts that are skin and bones, barely able to walk. They are basically starving to death literally eating themselves out of house and home.

What does the population trend look like? The population is increasing at approximately on average 18 percent annually. That means we need to remove about 9,000 horses per year just to keep a stable population. To bring the population in line with range capacity within 5 years, we need to remove approximately 13,000 to 14,000 horses per year. That is three times greater than the number we have the means to remove this year. That is also more than double the animals usually adopted in any given year. Even with the significant funds, we believe that we would saturate the adoption market at somewhere around 9,000 to 10,000 head. That means that we would have to warehouse 3,000 to 5,000 animals each year. Over a 5- to 7-year span, we would potentially be warehousing more than 35,000 animals at one time. The costs would be astronomical.

Where do we go from here? The new Wild Horse and Burro Advisory Board is advising us on policy formulation and program oversight. I want to highlight those members of that board. We have Robert Hillman from the Animal Protection Institute in California. We have Lonnie Williamson of the Wildlife Management Institute here in Washington, DC. We have Karen Ann Sussman, president of the International Society for the Protection of Mustangs and Burros. We have Fred Burke, who is an active natural resource manager from Arizona. We have Dr. Wayne Burkhardt with the Department of Range, Wildlife and Forestry at Reno. We have Bob Grieve, an expert in wildlife management from Wyoming, and chairing this organization is Dr. James Heird, the associate dean of Agricultural Science at Colorado State University. Also, we have Ed Murray, a veterinarian from Texas, and last but not least, is Mary Ann Simonds of the Whole Horse Institute in California. The reason I highlighted that, Mr. Chairman, is it shows the broad base of all groups involved in our Wild Horse and Burro Advisory Board.

The board is working very hard and taking a practical approach to the problem. We look forward to their report to the Secretaries of the Interior and Agriculture later this year.

In the short term, we will save money by terminating the two sanctuaries and reducing the scope of the prison program. The sanctuaries are not becoming financially self-sufficient as was agreed to. Dayton Hyde has provided a good—and I underline—home in South Dakota for unadoptable animals but has been unable to raise the funds from private sources that our agreement called for. The advisory board supports our decision to discontinue this experience.

Over the longer term, we will implement fertility control techniques and selective removals of adoptable animals. While a pilot program on four to six herd management areas will begin next year, it will take years to realize significant results.

The major deficiency of the Wild Horse and Burro Act is the lack of acceptable alternatives to the adoption program. Without a shift in public attitudes, we see no prospect of achieving an efficient herd and habitat management program. There are no simple—and I underline simple—or inexpensive solutions in this complex and difficult program.

PREPARED STATEMENT

We welcome the opportunity to work with Congress, and we intend to continue our efforts to find cost-effective measures to improve the situation. As I would like to say in closing, Mr. Chairman, really kind of where the rubber meets the road in this program is between the administration and Congress to find some reasonable solution.

Thank you for allowing me to testify.

[The statement follows:]

STATEMENT OF CY JAMISON

I appreciate the opportunity to appear before you to discuss the Wild Horse and Burro Program.

My statement is designed to answer the questions contained in Senator Reid's May 24, 1991, letter to me.

The primary intent of the 1971 Wild Horse and Burro Act, which I will refer to in this statement as the Act, was to ensure that herds of free-roaming wild horses and burros will remain on the public lands, protected from capture, harassment, or destruction. The Act provides that excess wild horses and burros must be removed from the range to maintain a thriving natural ecological balance.

We were asked how the Bureau of Land Management (BLM) incorporates the management provisions of Section 3 of the Act into its policy setting and decision making process. Also, how the BLM arrives at the level of horses it will protect and manage for a given area and how it separates out the contribution of wild horses in unsatisfactory range areas.

Section 3 of the Act requires the BLM to:

1. Manage wild horses and burros and habitat to achieve a thriving natural ecological balance on the public lands;
2. Designate wild horse and burro ranges on public lands;
3. Establish the appropriate management level (AML) of wild horses and burros; and
4. Determine how the AML shall be achieved.

Typically, ranges for wild horses and burros are only one of a number of uses found on public rangelands. Because these uses overlap and sometimes compete for the same basic resources, the BLM has developed a comprehensive planning system to allocate resources among the uses to meet the requirements of the various statutes, limitations on the public lands, and public desires. The BLM planning process is tiered, with resource management plans (RMP's) being the least specific, covering the largest area, and being completed first.

To determine the amount of resources available and the extent of the competition among the different uses, each planning cycle includes a data collection phase. Data are collected to determine the present condition of the soil, water, vegetation, and animal resources, the potential for enhancing these resources, and the number of each species on the area and their seasonal grazing patterns. In addition, these data aid in determining what influences -- such as animals, climate, human disturbance, -- are causing or contributing to the present conditions.

Using these data, objectives to attain a thriving natural ecological balance which are measurable, attainable, and consistent with the resources' present condition and potential, are set for each herd area. To assure compatibility, these objectives are developed in conjunction and coordination with objectives for other uses such as wildlife and livestock.

Extensive public involvement is also solicited throughout the land use planning process to assure that the objectives reflect not only public policies and legal mandates but also the concerns and desires of both local and national interests. Public involvement also includes consultation with the academic community, local, State, other Federal agencies, and groups with interest or expertise in management of wild horses and burros or their habitat.

In addition to establishing objectives, the RMP includes actions designed to attain these general objectives. When sufficient data are available, an allocation of the available forage to be allowed for each grazing species is included in the RMP. This decision is designed to assure that the resources can sustain the total of all grazing uses and will meet the objectives established for the area. However, because livestock, wild horses and burros, and some species of wildlife have similar diets and grazing areas, the proportion of forage allocated to each species can vary considerably while still maintaining a thriving natural ecological balance and attaining resource objectives. Consequently, social, economic, and other considerations are also factors in allocation of the forage to each species on virtually every wild horse and burro area.

The RMP's are generally followed with herd management area plans (HMAP's) to guide management of the wild horses and burros and their habitat. The HMAP contains additional and more specific objectives than the RMP and includes the specific actions and timeframes for implementing the actions needed. While an HMAP is not required prior to removing excess animals, a typical HMAP includes the range developments needed to enhance management and population control methods to be used for maintaining the AML and attaining a thriving natural ecological balance.

When sufficient data are not available at the time an RMP is completed on an area with wild horses or burros, the allocation decision is postponed until additional monitoring data are available. Generally, 4 to 5 years of monitoring is sufficient to establish an AML for an area. After the initial allocation and AML have been established, data collection is geared to determining if objectives are being met, and if not, why they are not being met. If the data point to an improper allocation of resources among the species, a new allocation will be proposed and a new planning cycle will be started with an amendment of the RMP.

We were asked whether the BLM wild horse and burro program is out of balance and what BLM plans to do to correct the imbalance.

The Act intended that rangeland conditions and herd welfare would be the focus of the program. A main objective of the BLM over the past decade has been to reduce the populations of wild horses and burros to appropriate management levels (AML's), as required by the Act. The adoption program serves merely as a means for the BLM to place healthy excess animals in private care. The imbalance in the program is largely due to the fact that the wild horse population has no predators and a high degree of fertility and survival. As a result of other complicating factors, including market demand that does not match the number of animals available for adoption, merely taking the animals off of the range results in a bulge or oversupply that causes a secondary imbalance. All of this leads to costly holding situations, and reduces the funds available for removal of excess animals to maintain a thriving natural

ecological balance. As a result, removals are delayed. The larger the population that remains on the range, the larger the annual increase in that population that must be removed just to keep the numbers static.

Thus the costs of future removals and disposition continue to increase.

In an effort to address the population imbalance, Congress tripled the program's appropriation in 1985 and ordered triple removals. Funding and removals in 1985, 1986, and 1987 allowed progress towards AHL's but put pressure on the disposition side of the program. Waiver of adoption fees alleviated the pressure but was challenged in court and discontinued by BLM in 1988 when it was found that some animals were being destroyed for commercial purposes. Legal challenges to removal decisions concerning the integrity of the data in the last few years delayed removals and resulted in continued population increases, further aggravating the problem.

We are now faced with a population estimated to be over 50,000 wild horses and burros and the need to remove about 9,000 animals a year to stabilize the population at 50,000 animals. Meanwhile, we have monitoring data that shows a thriving ecological balance is not being maintained and that demonstrates the need to reduce both herd size and livestock grazing on many herd management areas. Thus, in order to to comply with the law, our real annual removal need is between 13,000 - 14,000 animals. This brings us right back to pressures on the adoption program to find homes for 13,000-14,000 wild horses and burros.

Frankly, we do not believe we are capable of finding homes for that many animals in 1 year. Consequently, if necessary removals are carried out, the program will become further unbalanced by the need to hold large numbers of animals for long periods pending adoption. No one wants to hold animals in pens or corrals for long periods of time, but there are not many attractive options for excess animals that exceed our capability for placement through adoption.

The Act provides for humane destruction of excess wild horses and burros for which there is no adoption demand. Except for a few animals in the late 1970's and early 1980's, we have not used that tool. Since 1982, the BLM and

the Forest Service have maintained a voluntary moratorium on humane destruction of healthy animals, and Congress has prohibited such destruction in each of the last three appropriations acts.

In the past, we have tried various options, none of which was particularly satisfactory.

a. Fee waiver adoptions. This program, which allowed an individual to organize a large group of adopters to adopt four wild horses each, all maintained by the organizer, was legal and cost-effective but, as I mentioned earlier, resulted in some animals being destroyed for commercial purposes. Fee waivers were the subject of a court challenge, which resulted in a ruling that BLM could not adopt or title wild horses where the adopter had expressed an intent to use the animals for commercial purposes after title was conveyed. Although the narrow ruling did not prohibit fee waivers, the BLM soon decided to terminate the program. About 20,000 wild horses were removed from Government care under the fee waiver program.

b. Sanctuaries. The 1986 Wild Horse and Burro Advisory Board envisioned sanctuaries as a private sector initiative to provide care for unadoptable horses, but no sanctuary was able to get started without some Government money for a limited period (3 years). Unfortunately, although the care has been good, neither the South Dakota sanctuary, whose 3 years expire in August 1991, nor the Oklahoma sanctuary, whose three years will expire in September 1992, appears capable of raising anywhere near the funding required for self-sufficiency. The two sanctuaries cost the taxpayers close to \$2 million per year. It is hard to justify continuing to pay more than \$450 per head per year indefinitely.

c. Prisons. The prison training program is not a separate option for placing horses but an adjunct to the adoption program. It aims at increasing the desirability of horses aged 5-9 by gentling the animals for easier handling by adopters. This program has been good for the prisons and of some benefit to the BLM adoption program, but again there is an imbalance between the benefit BLM derives and the cost of at least \$250 for every animal trained.

Unless we can get the populations on the range down to AML's, the program cannot be restored to balanced management that reflects the original intent of the Act. Once at AML's, the adoption program could easily handle the number of animals that would have to be removed annually to maintain a thriving natural ecological balance.

We were asked about BLM's short and long term goals.

As to our short term goals:

The high cost of the two sanctuaries and the prison program has resulted in a lot of funding going into the disposition portion of the wild horse and burro program. As I said, our agreements with the sanctuaries call for federal funding for 3 years, after which private funds would cover all costs of the facility. The South Dakota sanctuary agreement which ends this August is far short of its funding needs. Therefore, by letter of April 29, 1991 we notified the sanctuary that funding would be terminated. Adoptable animals will go into adoption centers. For unadoptable animals the most viable option appears to be to return them to a few herd management areas.

We are hopeful that the Oklahoma Sanctuary will be successful in fundraising, but if not, we do not plan to continue federal funding beyond the agreement date of September 1992. We will be exploring removal options well ahead of that date in preparation for that eventuality.

The animal holding facilities in the prison program will be scaled back from the present capacity of 2,000 wild horses to only enough capacity to maintain the animals in training. Maintenance space, where animals waiting for adoption are cared for, would be developed on BLM land and operated by BLM employees to reduce the daily cost from as much as \$7.00 per animal to about \$2.00 per animal.

As to our long-term program strategy:

In conjunction with our efforts to bring the disposition portion of the program in balance with the need to increase emphasis on herd management, the BLM will initiate the following longer term actions:

- o Data collection on Nevada and Wyoming: Sufficient data are available for removing excess wild horses and burros to maintain populations at the AML in all States but Nevada and Wyoming. These two States have 55 percent of the herd management areas and 85 percent of the wild horse and burro population. At maximum effort, it will require at least 4 years to collect all the data and issue all of the wild horse/livestock/wildlife decisions needed to support removal of all excess animals in Nevada and Wyoming.
- o Accelerate AML Decision/Schedule: the BLM intends to issue decisions establishing an AML on at least 25 herd management areas each year. The BLM must immediately remove animals from areas after the AML has been established. Failure to do so in the past has resulted in litigation. Under the accelerated decision schedule, the BLM would have to remove approximately 14,000 animals annually.
- o Pilot Fertility Control Program: A pilot fertility control program on 4 to 6 herd management areas will be initiated in FY 1992. This will provide time to study the effects of the treatment on the animals and to develop adequate guidance prior to implementing a full scale program. An expanded fertility control effort will only follow when sufficient funding is available and it is clear that the program has no significant undesirable effects. If all goes well, by FY 1993, assuming the pilot fertility control program does not uncover any significant undesirable effects, the BLM will implement an aggressive fertility control program on herd areas as populations are reduced to the AML.
- o Of the several available techniques -- selective removal based on age and sex, chemical or injectable fertility control agents, and surgical sterilization -- the specific fertility control procedures to be used on each herd management area will be determined in the planning process.

As was requested, we attach to this statement the budget history in the horse and burro program. We cannot estimate what funding will be needed to

implement program improvements until all the available options are explored in more detail.

Another question asked what are the current wild horse and burro populations on the public lands, including Nevada specifics, and the outlook for population increases.

The wild horse and burro population on public lands administered by the BLM was estimated to be approximately 30,000 animals in October 1990. New figures reflecting reproduction and removals since that date will be available in October 1991. The wild horse and burro population in Nevada at the end of FY 1990 is estimated to be over 35,000 animals.

However, there are reasons why this number may be considerably below the actual population. All census figures developed in Nevada to date are based upon actual counts of individual animals. No corrections have been made for animals not counted due to the terrain and tree canopy or for reproduction in herds since the last census. In some Nevada herd areas, the population reflects counts conducted in 1985. It would be reasonable to assume that the counts are 15 to 30 percent below the actual number of animals on the public lands. By increasing the level of census in FY 1992 and beyond and using some additional techniques to correct for undercounting caused by terrain, it will be possible to give a more precise figure at the end of FY 1992.

During the period that the fertility control studies were completed in Nevada, a privately funded study was completed by Dr. Robert Garrott to determine, among other things, the rates of increase in wild horse populations. While the study showed an annual increase of 11 to 27 percent, the average annual increase in populations was near 18 percent. Other data the BLM has collected are consistent with this figure. With this rate of increase, at least 9,000 animals (6,300 animals in Nevada) would have to be removed in FY 1991 just to keep the Bureau's wild horse and burro population on public lands from increasing. Considerably more would have to be removed to achieve the AML estimated to be near 30,000 wild horses and burros (less than 20,000 in Nevada).

As to the percentage of wild horses that are considered adoptable, when gathers are carried out by nonselectively removing all animals captured, about 85 percent of the animals are categorized as adoptable, i.e., sound animals less than 10 years of age. However, beginning March 13, 1991, the BLM has returned all unsound animals and those 10 and older to the range immediately after capture. Consequently, we expect about 98 percent of animals removed in the future to be adoptable.

This is how the adoption program functions - -

Healthy wild horses and burros removed from the range are prepared for adoption at BLM preparation centers. Preparation includes aging, freeze marking, testing for equine infectious anemia, inoculations for various equine diseases, and worming. The animals are held at the preparation centers until they are ready for shipment to adoption sites or to one of the prison facilities in California, Colorado, New Mexico, and Wyoming. Horses sent to the California and Wyoming prisons are in the 3-9 year age range. These horses are partially trained by prison inmates and then made available for adoption, either at the prison or at another adoption site.

The prisons in Colorado and New Mexico receive 3-9 year old horses for training before adoption, but they also serve as holding facilities for younger animals pending shipment to adoption sites, usually in the East.

The majority of adoptions take place in the East and Midwest. Two contractors operate year-round centers and help the BLM with temporary adoptions in various parts of the region. Most adoptions occur at temporary adoption locations held over a weekend in areas where adoption demand has been identified.

New Mexico and California are the next most active adoption States. Adoptions in the West have been affected in recent years by drought conditions, which have driven up the price of hay, and by a certain amount of market saturation.

Wherever adoptions occur, adopters are screened to see that they meet the qualifications set forth in the 43 CFR 4700 regulations. Adopters pay a fee of \$125 per horse and \$75 per burro. They also sign a Private Maintenance and Care Agreement (PMACA) that commits them to providing good care of the animals. After a year, the adopter is eligible to receive title to up to 4 animals annually if the animals have been cared for properly. By law, once title is conveyed to the adopter, the animal loses its status under the Wild Free-Roaming Horse and Burro Act.

During the year before title can be granted, BLM responds to all complaints concerning possible violations of the PMACA. We also make compliance inspections at least monthly where more than four animals are maintained at one location. Wild horse interest groups and humane organizations also help with compliance checks.

Wild horses and burros are available for adoption at BLM facilities and at contract adoption centers.

BLM Facilities are located in:

Kingman, Arizona
 Litchfield Corrale, California
 Ridgcrest Corrale, California
 Palomino Valley Wild Horse & Burro Adoption Center, Sparks, Nevada
 Burns, Oregon
 Rock Springs, Wyoming

Contract Facilities are located in:

Lewisberry, Pennsylvania
 London, Ohio

Over the years, we have had contract centers in several locations. Centers are closed where there is no further need for a facility in a particular area,

the facility is not cost-effective, or when the contract expires and another contractor is chosen through the competitive bidding process. For example, when the contract expired for the adoption center in Cross Plains, Tennessee, last year, cost considerations led us to seek a new contract through the competitive process. A new contract is expected to be awarded soon.

Other locations of past contract adoption centers have included Nebraska, Oregon, and Texas.

We were asked about the role of the BLM's National Wild Horse and Burro Advisory Board.

The role of the Board is to assist and advise the Secretaries of the Interior and Agriculture on wild horse and burro policy formulation and to provide program oversight. This Board, which was created at the direction of Congress in the the 1990 Appropriations Act, is an active one. The Board has met three times since their appointment in October 1990.

The Board is looking at a broad range of program issues. Topics under consideration include short-term issues, such as prison training, sanctuaries, immediate removal needs, and long-term issues such as herd management, fertility control, removal options, census, program coordination, marketing, and professional education and training for wild horse and burro staff. We expect a report from the Board by the end of the calendar year.

Attached to this statement is a list of recommendations from the Board's May 13-15, 1991, meeting at Pueblo, Colorado.

Finally, we were asked what the BLM has done to implement the recommendations in the August 1990 GAO Report "Improvements Needed in Federal Wild Horse Program."

As to the recommendations concerning management of the range, the BLM is revising Manual Section 4710, Management Considerations, to provide guidance to the field about data needs, reduction of livestock use as well as wild

horses, and monitoring to maintain wild horse and domestic livestock levels after initial population adjustments are made. We expect to publish the revised Manual Section by October 1, 1991.

The GAO recommendation concerning restriction of fee waivers has been implemented by publication of a rulemaking that significantly reduces the likelihood of the kind of abuses criticized by the GAO. The regulation now limits the use of powers of attorney in adoptions. The rulemaking became effective on October 25, 1990.

The GAO recommendations concerning prison training programs are being met through development of a prison training handbook. We expect this to be issued by the end of FY 1991.

The GAO recommendation for the BLM to consider a variety of disposal options is being met through policy review by a BLM Wild Horse and Burro Steering Committee made up of five State Directors. In addition, the program is being reviewed by the Wild Horse and Burro Advisory Board. We expect the Board's advice to be of considerable help to us in formulating new policies.

This completes my prepared statement, I will be pleased to answer questions.

Wild Horse and Burro Advisory Board Recommendations
to the Secretaries of the Interior and Agriculture
May 13-15, 1991 - Pueblo, Colorado

1. **ISSUE:** The Board expressed concern about the lack of clearly defined professional qualifications and training for personnel in the wild horse and burro program, as well as for contractors in the program.

RECOMMENDATION: The Wild Horse and Burro Advisory Board recommends to the Secretary of the Interior and the Secretary of Agriculture that they:

- a. Petition the Office of Personnel Management to develop a Technical Series and Professional Series for wild horse and burro personnel.
- b. Require all contractors operating in the wild horse and burro program to have appropriate certification demonstrating professional expertise in performing their wild horse and burro function.

[Passed unanimously.]

2. **ISSUE:** The Board was concerned that policy and procedures for proper administration of the program may be lacking and that, even where acceptable guidance exists, there seems to be little or no accountability.

RECOMMENDATION: The Wild Horse and Burro Advisory Board recommends to the Secretary of the Interior and the Secretary of Agriculture that they direct the Director of the Bureau of Land Management and the Chief of the Forest Service to:

- a. Hold appropriate managers accountable for achieving established wild horse and burro goals and objectives.
- b. Review existing policies and procedures with regard to their improvement.

[Passed unanimously. A later motion to insert a timeframe in the above motion failed, 4-3.]

3. **ISSUE:** In keeping with the Director's original charge to the Board to help get the program back in balance, the Board agreed that primary program emphasis should be on management of wild horse and burro herds on the range.

RECOMMENDATION: Whereas the Wild Horse and Burro Act directs the Secretaries to protect, manage, and control wild horses and burros on public lands, the Advisory Board believes that the need for prison programs and sanctuaries is not integral to a quality management program for wild horses and burros; therefore, this Board recommends that future program emphasis and funding be directed toward management of the animals on the public range.

[Passed unanimously.]

4. **ISSUE:** Although the Board believes the training of wild horses in prisons may eventually no longer be needed, they are concerned that while the program continues, it should have consistency throughout the Bureau and meet quality standards.

RECOMMENDATION: The Wild Horse and Burro Advisory Board recommends to the Secretary of the Interior and the Secretary of Agriculture that criteria and guidelines be established for current prison horse programs and that a quality assurance program be implemented with oversight, direction, and review.

[Passed unanimously.]

5. **ISSUE:** The Board discussion on this issue began with consideration of the need for a Great Basin Wild Horse and Burro Center, where the public could view a wild horse herd, preparation of wild horses and burros for adoption, and an educational exhibit. The discussion expanded to the broader issue of marketing and public education about the overall wild horse and burro program. The Board seemed to believe that the agencies have not marketed the wild horse and burro program effectively. For example, they see a need to "sell" the value of wild horses and burros in conjunction with recreational and environmental programs.

RECOMMENDATION: The Wild Horse and Burro Advisory Board recommends to the Secretary of the Interior and the Secretary of Agriculture that public education and marketing be implemented as a part of the wild horse and burro program and that wild horse and burro protection and management become an integral part of any environmental education program.

[Passed unanimously.]

6. **ISSUE:** The Board recognized the need for some type of manipulation of populations in order to slow the rate of growth of the herds. They did not endorse any one approach, but instead indicated support for several study herds where various methods and combinations of methods could be applied. They specifically rejected further formal research as too time-consuming, preferring practical field trials.

RECOMMENDATION: The Wild Horse and Burro Advisory Board recommends to the Secretary of the Interior and the Secretary of Agriculture that the BLM and the Forest Service:

a. Further investigate and implement the safest, cost-effective, and least stressful horse handling and removal methods that will meet the goals and objectives for the individual herd management, and

b. Develop criteria and methods for fertility control, now and in the future.

[Passed unanimously.]

7. **ISSUE:** The Board supports the closing of the South Dakota sanctuary, if necessary, at the end of the 3-year period of Federal funding (August 1991). The Board prefers minimum amount of handling and movement of horses that must be removed from the sanctuary. They also believe that the BLM must involved interest groups in marketing those sanctuary horses that could conceivably be placed in adoption. Emphasis should not be on "getting rid of" these animals; instead they should be offered as special, limited-edition animals.

RECOMMENDATION: The Wild Horse and Burro Advisory Board recommends to the Secretary of the Interior and the Secretary of Agriculture that BLM implement a responsible dispersal plan for excess wild horses, including sanctuary horses, that minimizes stress for the horses and engages cooperative marketing assistance from interest groups.

[Passed unanimously.]

8. **ISSUE:** Although the Board is on record in recommendation #3 as viewing prison training programs as nonessential to a quality wild horse management program, they were favorably impressed with the proposal of the Crabtree, Oklahoma, prison facility to train wild horses. The Crabtree proposal has features that make it more attractive than some of the current prison programs, e.g., willingness to work with animals over 10 years of age, vo-tech program associated with the proposal, followup study of effect on prisoners, etc.

RECOMMENDATION: The Wild Horse and Burro Advisory Board recommends to the Secretary of the Interior and the Secretary of Agriculture that the BLM give consideration to the Crabtree (Oklahoma) Correctional Facility wild horse training program.

[Passed 5-2.]

9. **ISSUE:** Apparently, the Board feels their work may not be given serious consideration by individuals in positions of authority, as reflected in the recommendation below.

RECOMMENDATION: The Wild Horse and Burro Advisory Board is concerned that its recommendations may not result in appropriate responses that improve wild horse and burro programs within BLM and the U.S. Forest Service. Therefore, it urges the Secretaries of the

Interior and Agriculture to develop plans and take action that would implement Board recommendations and that the action plans be made available for Board review at its next meeting.

[Passed unanimously.]

In addition to the nine recommendations adopted by the Board, one recommendation was proposed but not approved. The defeated recommendation, which was prompted by knowledge of the Secretary of the Interior's legislative initiative to allow wild horses to be transferred to foreign countries, is shown below.

The Wild Horse and Burro Advisory Board recommends to the Secretary of the Interior and the Secretary of Agriculture, in light of public concern, that the export of wild horses and burros be discouraged at this time.

[The motion failed by a vote of 4-3.]

WILD HORSE AND BURRO PROGRAM APPROPRIATIONS - 1972-1991

Fiscal Year	Appropriated Amount
	Bureau of Land Management
1972	\$ 0
1973	400,000
1974	687,000
1975	1,314,000
1976	1,272,000
1977	2,679,000
1978	4,025,000
1979	4,250,000
1980	4,582,000
1981	5,704,000
1982	3,418,000
1983	4,877,000
1984	3,766,000
1985	17,039,000
1986	16,234,000
1987	17,936,000
1988	14,774,000
1989	14,560,000
1990	13,549,000
1991	14,161,000

STATEMENT OF DELOYD SATTERTHWAITE

Senator REID. Mr. Satterthwaite.

Mr. SATTERTHWAITE. Thank you, Senator Reid. As was mentioned, I am Deloyd Satterthwaite from Tuscarora, NV. I am a rancher, permittee holder, and I am also here representing State Senator Dean Rhoads. Unfortunately, our State legislature is still in session, and he was unable to attend.

To address a couple of the points that we were asked to address, I am not fully aware of too many detailed studies that would document the effects on animals upon range conditions and the forage that they abuse, but one particular area is in eastern Nevada

known as the Chin Creek Reservoir area. These studies were conducted by the Bureau of Land Management to reveal just what the cause of overgrazing and the deterioration of the conditions of the areas were.

The livestock were then removed, but later on it was determined that it was not the cattle or the sheep that were doing the damage. The horses were left, and in this particular instance, it was a proven fact that the horses were the culprit in this particular area.

There is no use going any farther into the Nellis situation, but there is another prime example.

There are not too many documented studies giving this type of information. However, the people that we have listened to here today will document areas that they have seen, that they have been on, that they have experience with.

The other basic problem I think that we are up against is the appropriate management level that was once determined and how that level within these herd management areas was going to be retained. For any number of reasons, this level now is very rarely ever accomplished.

It is interesting to note that in an area that I live in, we have an area called the Little Humboldt, the Little Owyhee management area. In that area, the appropriate management level was 200 head of horses. At the present time now there are 819 head of horses. Within that area, there are 414,000 acres. If you were to figure that out, it would take 4.25 acres per month per horse. But it is also an area that the cattle in that particular area need to have 8 acres per month. The cattle are there seasonally. The horses are there year around.

The accuracy of the estimates by the BLM, of course, has always been questioned, and it has been the contention of persons familiar with the wild horse areas that these counts are consistently low. This has been proven over several incidents after gathers have been completed. The BLM in the eighth report to Congress reports that this census is very difficult and often the results are inaccurate. Counts conducted every 2 or 3 years are sufficient for management information needs. However, they are not correct. When these figures are not correct, only one thing can happen, the overpopulation of horses due to untrue figures, of course, with their estimates being low. You have to have trends of forage and soil and whatever going in the negative areas.

In the State of Nevada now, we have tried through the State legislature to come up with some new ideas, and there have been passages of two bills. One is Senate bill 237 which requires among other things, the Nevada Commission for the Preservation of Wild Horses to recommend to Congress that the BLM establish between four and six management areas in this State for wild horse herds in order to conduct studies in controlling the population of these horses. This bill I understand now was signed by the Governor.

The other bill was an assembly joint resolution 22, and it was passed out last Tuesday, passed through both houses. It urges Congress to review the funding for the management of wild horses. It seems as though that out of the \$14.1 million that is in the horse annual budget, Nevada gets \$2.5 million. We have at least 65 percent of the horses within our State.

PREPARED STATEMENT

I believe that pretty well summarizes in a short period of time, Senator, and you have this statement of Mr. Rhoads and myself for the record.

Senator REID. That full statement will be made part of the record.

[The statement follows:]

STATEMENT OF NEVADA STATE SENATOR DEAN A. RHOADS

My name is Dean Rhoads. I have been engaged in cattle ranching in Northeastern Nevada for the past 25 years. In addition, I have been active in various range livestock organizations and represented a portion of Northern Nevada as an Assemblyman in the Nevada State Legislature for three terms. At the present time, I am completing my second term in the Nevada State Senate.

The state of Nevada is approximately 87 percent public land and over 65 percent of the total wild horse population lives in Nevada. Because of just these two facts, I have been continually confronted with the problems created by wild horse herds, not only as it affects the multiple use of public lands, but also as the economic effect upon the entire state. Therefore, the opportunity to testify at this time is appreciated.

I was asked to provide testimony in five separate areas and my testimony will cover that request.

Effect of wild horses and burros on range land conditions and forage

I am aware of only a few detailed studies which would document the effect of these animals upon range land conditions and forage. One in particular is an area in Eastern Nevada, known as the Chin Creek Reservoir area. Studies conducted by the Bureau of Land Management revealed that this area was over-grazed and in a deteriorating condition. As this area was within a grazing allotment, it was first believed that the cause of the problem was primarily by livestock. However, subsequent removal and non-use by domestic livestock did not improve the matter and it was finally decided that such damage was mainly attributable to wild horses. This is only one example. I am sure that other examples are found in areas where over population of wild horses and burros occur.

Up to this date, management of numbers of wild horses and burros has followed a basic pattern. Once an Appropriate Management Level is determined by the managing agency, an attempt is made to attain a population near that level within each Herd Management Area. For any number of reasons, this is rarely accomplished. In the event the level is reached and the animals have a thriving ecological environment, they can increase dramatically in numbers to again exceed the appropriate level. A review of information presented in the Eighth Report to Congress 1990 on the Administration of the Wild Free-Roaming Horse and Burro Act reveals that a majority of the herd management areas exceed the appropriate level. For example, the Little Owyhee Management Area, which is not far from my home, has an Appropriate Management Level of 200 horses with a reported population of 819 animals. That area is reported as containing 414,000 acres. The 819 animals will consume a total of 9,828 animal unit months during a year which makes it necessary that each 4.25 acres carry one horse for one month. This is in an area that it has been considered necessary to average 8 acres per month per cow. Domestic livestock grazing is on the basis of seasonal grazing which allows periods of rest and growth for vegetation while wild horse and burro grazing is year long. This heavy, continual grazing is not tolerated in prudent range management.

Again, from a review of the Report to Congress, it is apparent that over-grazing by wild horses is quite prevalent. For the entire state, the Appropriate Management Level is 18,502 wild horses, while it is reported that the population is 30,798 animals. One can only assume that over-grazing by wild horses is quite prevalent.

Accuracy of BLM wild horse population estimates

Accuracy of the estimates of wild horses has always been questioned. It has been the contention of persons familiar with wild horse areas that the counts are consistently low. This has been proven in several instances after gathers have been completed. At the present time, a study is being conducted in Nevada by private funds to determine the accuracy of a count in a specific area. The BLM reported that approximately 72,000 animals were in a management area.

The BLM in the Eighth Report to Congress reports that census is difficult and the results inexact. Counts conducted every two or three years are sufficient for management information needs. However, this may not be correct, if each count is consistently low. Over-population which results in poor condition animals and damage to the forage resource can easily be the result of any low estimate.

There is no practical answer to accurately determine populations in an economically feasible manner. Total, accurate counts would be cost prohibitive each two or three years. Possibly the answer is to make one total count of each herd area and then conduct such surveys as would be used to indicate population trends.

Impact of the BLM wild horse and burro program on livestock permittees

Permittees acquired their grazing preference upon the public lands under the Taylor Grazing Act which was passed in 1934. Basically, this Act, as amended, is still in effect. One of the objectives set forth in this act was to stabilize the range livestock industry, which was being accomplished. At the present time, permittees are faced with possible reductions in their historic use due to populations of wild horses and burros requiring forage and water which, with the recognized use for domestic livestock, exceeds the carrying capacity of areas. This results in a lack of stability in an operation and any rancher who has a wild horse population in his area of use must consider a possible reduction in his use of the public land.

Domestic livestock use of the public lands has steadily declined, both as to cattle and sheep. Even with this reduction in use, the permittees continue to face possible reductions for wild horse use.

A majority of the ranchers who use public lands have been required to invest a considerable amount of their own funds in range improvements in order to work toward proper distribution and management of their livestock to provide adequate forage and protect or improve that resource. In many instances, funding is on a co-operative basis between the permittee and the BLM. In all instances, operation and maintenance of these improvements is the responsibility of the rancher. The impact of wild horse and burro herds to the permittee is particularly dramatic in instances where wells operated by pumps are required to provide water to the animals in the area. These installations normally have a storage facility which is filled periodically depending upon the number of domestic animals using the facility. If wild horses and burros are using the facility, it is necessary to check the facility at more frequent intervals, make greater use of the pumping facilities, usually by gasoline or propane motor, and perform additional maintenance. This additional expense is not recaptured by the permittee.

Concentrations of wild burros around available waters normally result in injuries to mature cattle and in numerous instances death to younger calves as the mature wild male burros will attack and drive them from water.

Recommendations from the livestock industry on how to improve management of the horse and burro program

It is almost impossible to present to you recommendations for improvement of the management that would be acceptable to the Western range livestock industry as a whole, primarily because different problems occur in each state. However, the one recommendation that is consistent throughout is that herds must be reduced to the appropriate management level in order to provide a thriving ecological balance and to ensure that herds remain within recognized herd areas. The attempted procedure has been to gather excess animals and dispose of as many as possible through adoption with the remainder, being unadoptable, to be placed in sanctuaries. However sanctuaries are being phased out due to the lack of funds, so this avenue may not be available in the near future. Adoption has proven to be very expensive. The cost of gathering, holding and processing both adoptable and unadoptable horses during fiscal year 1989 was \$8,326,000 or 56 percent of the expenditures. The expenditures included removal of 4,462 animals, adoption of 5,220 and title issued on 9,777. In order to remove some estimated 16,000 animals so that the appropriate management levels can be reached, the cost would be staggering under the present system being used. It has been recommended that the managing agencies be provided with sale authority of these excess animals in order to attain the population goals in a reasonable period of time. In order to help defray the cost, it has been further recommended that the funds realized from such sales be credited to the wild horse program to reduce the tax cost. Once populations have been attained which reflect the management level, a continuing program must be initiated to stabilize the population within the herd management areas. One procedure which is being discussed at this time is breeding control through tubal ligation of the breeding females. The continued cost of such a program may prove this to be prohibitive, but it does appear to be an approach which may be acceptable to the wild horse advocates.

A more drastic approach which has been presented, is a proposal to establish ranges within each state for a specific number of animals. These ranges would be within an existing livestock unit with management and care of the animals being assigned, under contract, to private individuals owning land, water and grazing privileges in the area. The private individual, under the supervision of the managing federal agency, would provide water and forage to the animals, facilities for gathering excess horses, and move the animals according to seasonal and forage requirements. Gathering and disposal of the animals would be done under the authority of the managing agency. The advantages of such a system is to stabilize the cost of this program, ensure preservation of the animals under thriving conditions and provide a means of predicting future costs. In addition, incidents such as malicious killing of the animals should be eliminated. Wild horse advocates object to this approach as it does not truly reflect the purpose of the Wild Horse and Burro Act of 1972. However, it may be a means to preserve important herds to meet that objective.

Nevada legislative action that may effect the management of wild horses and burros

Senate Bill 237 requires, among other things, Nevada's Commission for the Preservation of Wild Horses to recommend to Congress that BLM establish between four and six management areas in this state for wild horse herds in order to conduct studies for controlling the population of the horses. The bill outlines some of the recommendations that must be submitted by the commission, including the establishment of a program to control the wild horse population in the management areas. The measure also specifies some of the elements of the studies which the commission would conduct and the entities to which the commission must submit its recommendations.

The bill also creates two separate trust funds to be administered by the commission. The Heil Trust Fund is for the deposit of money received from the estate of Leo Heil and other money designated for the preservation of wild horses. The other trust fund—the Fund for the Commission for the Preservation of Wild Horses—is for money received from other sources. The money in the second fund must be used for the purpose for which it was given, or any other purpose, that is consistent with state law concerning the commission.

Senate Bill 237 is supported by the commission, the Nevada Humane Society, the Nevada Farm Bureau and the Nevada Cattlemen's Association. No opposing testimony was presented to the Senate Committee on Natural Resources. The bill has passed both houses and, as of June 10, 1991, has been sent to the Governor for his approval.

Assembly Joint Resolution No. 28 urges Congress to review the funding for the management of public lands and the protection of the habitat of wild horses and burros. The resolution encourages Congress, as a result of this review, to provide a pro rata distribution of money that is based on the population of the herds of wild horses and burros in each state.

Although over 65 percent of wild horses and burros in the United States are in Nevada, the BLM office in this state receives less than 16 percent of the total Department of Interior budget for the management of the range land and habitat protection of the wild horses and burros located in Nevada. This lack of adequate funding has precluded the federal agencies responsible for these animals from gathering the monitoring data necessary to establish a thriving natural ecological balance. Consequently, a significant increase in the wild horse and burro budget for Nevada BLM is vital to properly provide for the horses and the other animals with which they co-exist on the public lands.

Assembly Joint Resolution No. 28 further urges the Secretaries of the Departments of Agriculture and Interior to recognize Nevada's Commission for the Preservation of Wild Horses as a state agency for the purposes of the Wild Free-Roaming Horses and Burros Act of 1971. The Act requires the federal agencies responsible for the nation's wild horses and burros to consult with state wildlife agencies. As the state agency primarily concerned with wild horses, the commission must be included as one of the state agencies with which federal agencies consult on this vital natural resource issue.

As of June 10, 1991, A.J.R. 28 had been passed by the Assembly and sent to the Senate for consideration.

STATEMENT OF NANCY DAVES

Senator REID. We will now hear from Nancy Daves. Did I pronounce your name correctly?

Ms. DAVES. Yes, you did.

Thank you, Mr. Chairman. As you mentioned, my name is Nancy Daves of the Animal Protection Institute [API]. I am substituting this morning for API's wild-horse specialist, Nancy Whittaker, who was invited to testify, but is unable to be with us today. I hope that you will not see API's substitution of second string personnel as lack of interest in this issue. If you have any questions or want any additional information, I will be happy to pass the request on to my better informed colleagues in Sacramento who, through the wonders of technology, will be able to respond to you promptly.

I have a statement that Nancy Whittaker prepared that I will be glad to summarize. I believe you have the full statement in your office.

When BLM launched its massive roundup program in 1985, it was an interim action on a proposed rulemaking and funded by an amendment to a continuing resolution. The basis of our continued legal challenge is this 1984 rulemaking which is now incorporated into regulations. In our series of appeals to the Interior Board of Land Appeals challenging the roundups, our arguments were direct quotes from BLM's own prerulemaking policies, procedures, and even their own testimony in Federal court on the legal limits governing removals. They also included the congressional committee reports stating the intent of the law.

The December 1984 rulemaking changed the direction of the wild horse management program. There was no reason for this rulemaking. The law had not changed. In fact, two attempts to amend it had just failed, and draft legislation for an omnibus rangeland bill that would have authorized massive reduction of wild horses was so overwhelmingly opposed in the Congress that it was not introduced.

The rulemaking itself was challenged because sections were deleted from regulations without any notification to the public. These included the sections of regulations that required monitoring and inventorying plus other habitat and population protections.

In other sections that were changed, we were not able to predict the significance or meaning until we saw them put into action.

In 1989 the IBLA consolidated our series of appeals and ruled that the roundups did, in fact, violate the law on four points that we raised. BLM had failed to properly determine excess. Two, they had failed to environmentally assess the removal decisions. Three, appropriate management levels reported in land use plans were improperly established, and four, they failed to apply the justification for removals that they had argued and won in Federal court. When API appealed to the IBLA, the solicitors refused to defend the agency.

To date, the ruling has not been implemented. To do so would require rewriting regulations to bring them into line with the statute and amending land use plans. IBLA has ruled that the sole and exclusive authority for removals is in the law.

The prerulemaking policies and programmatic guidances based on the information in the phase 1 National Academy of Sciences report lays the foundation for a sound and workable program. The Nevada field manual details the types of monitoring and inventorying needed to justify removals in keeping them within

laws. These are criteria that the law requires and which we support.

In regard to the portion of the program that includes processing, adoption, and maintenance, all of the programs in this end of the program result from those illegal removals. Between 40,000 and 50,000 horses were removed in 3 years. If removals had been based on monitoring actual utilization and impact of horses on the range, the numbers legally removed in this time would have been only a fraction of the number that were removed. The adoption program was not equipped to deal with this overload.

We commend the current administration for pursuing solutions to the problems in this portion of the program. We believe everyone is now in accord on solutions that are being proposed. The major concern would be if BLM were to allow this end of the program to drive the on-the-land management of horses and burros. Relevant to the on-the-land management program, API strongly favors contracting with outside capture crews so that wild horses and staff are technically oriented as range and wildlife experts rather than wranglers and cowboys.

PREPARED STATEMENT

In answer to your question on recommendations, the law does not need to be changed. The regulations need to be changed to reflect the law.

Thank you, Mr. Chairman.

[The statement follows:]

STATEMENT OF NANCY DAVES

The Animal Protection Institute (API) represents 150,000 members as interested and affected parties to BLM's management of wild horses and other public land wildlife and habitat. We greatly appreciate this opportunity to help you uncover what are the problems in this program.

From our perspective, the problem is not the law, but the elimination of the law from the program.

Background

The wild horse section of the Public Rangeland Improvement Act (PRIA) contains statutory directives for management that make it consistent with the Federal Land Policy Management Act (FLPMA) and the National Environmental Policy Act (NEPA). PRIA also places restrictions and constraints on removals. Your own Congressional Committee report says that in giving the Secretary of Interior the authority to remove horses, Congress is not granting him license. Thus, the formula for a sound management program is in the statutory directives that specify the monitoring, inventorying and population dynamics information needed to determine when an overpopulation exists and how many to remove as excess.

We find that by changes in Regulations, BLM eliminated statutory management directives, deleted statutory requirements for inventorying and monitoring, and changed the Congressional mandate by granting to the Secretary the very license that Congress withheld.

First, there was the 1981 rulemaking that changed the planning regulations. This deleted the statutory directives and constraints on management from planning criteria saying they belong in operations. Then the December 1984 rulemaking, which changed the wild horse regulations, deleted these statutory requirements for monitoring and inventorying from operations. That 1984 rulemaking essentially rewrote the law. It also put all wild horse decision making at the resource area level and said management numbers are to be determined as land use planning decisions—which is to say, by agreement with local interests with none of the statutory management directives as criteria or conditions.

Basis for API legal challenge

That 1984 rulemaking also changed the statutory definition of excess and allowed the removal of 35,000 horses as interim action on their substitute definition before it was corrected in the final rulemaking. The funding for those removals was by amendment to a Continuing Resolution made in this Committee. Another 15,000 horses were removed using arbitrary numbers [that were set in land use plans as management numbers] as the justification for removal. Again funding was by continuing resolution. The appropriations bill was delayed for four years forcing four consecutive Continuing Resolutions to carry over roundup funds from fiscal year 1985 through fiscal year 1988. The fiscal year 1986 House Appropriations bill, which said "no funds for roundups," was never reconciled with the Continuing Resolution for that year.

In the 1988 Report to Congress, you were told that over 100 herd use areas were eliminated as the result of an extensive review. We never saw that review. Had it been subjected to the NEPA process it would have been challenged as violating the law, which says BLM is to manage wild horses and burros in those areas where they existed at the time the 1971 law passed. The elimination was a land use planning decision with no statutory conditions and constraints applied to decisions for wild horses and burros. This is the result of having deleted monitoring and inventorying and habitat protection provisions required by law from regulations in that same 1984 rulemaking.

API challenged the legality of the mass adoption program that was created in the 1984 rulemaking in federal court. Both the District and the Appeals court declared that it violated law. But it took a contempt of court order to force BLM to end it.

In 1988, API appealed the roundup program to the Interior Board of Land Appeals. To challenge BLM actions requires challenging each site specific decision separately. Our 1988 challenge was actually a series of removal appeals. In our arguments, we quoted BLM's own pre-rulemaking policies and guidances. The case boiled down to pre-rulemaking BLM policy versus post-rulemaking BLM policy. We charged that the removals violated four points of law. In those appeals, the Solicitors refused to defend BLM. IBLA found that, in fact, the justification cited for the removals did violate the law on all four points. But BLM continued the roundups, refusing to implement the ruling. API then appealed the 1989-90 removal schedule; same arguments. IBLA ruled again; same findings.

It took this Congressional Investigation to force BLM to draft an Instructional Memo to implement the IBLA orders. However, BLM is preparing a rulemaking to put all wild horse removal decisions into an automatic full force and effect. This rulemaking will render the Instructional Memo moot. It will eliminate wild horses from the administrative appeals process. It will grant the Secretary discretionary authority on removals. In the course of justifying their removals to IBLA, BLM claimed that the Secretary has this discretionary authority on removals. But IBLA refuted that claim, saying "the sole and exclusive authority is in the law." To implement the IBLA ruling, the regulations need to be changed. We continue to appeal decisions which are now even more difficult because these must be done allotment by allotment, site specific, and based on the technical data from monitoring livestock grazing.

The GAO report barely scratched the tip of the iceberg on what is wrong with the management of wild horses. Since the law specifies what is an overpopulation and BLM has not met those statutory specifications, their ongoing claims that there is an overpopulation has no basis. Their pleadings of a dire need for fertility control devices and more and more roundups has not been shown to exist in actuality. They refuse to collect the data or apply the population dynamics information that would show whether or not there is an overpopulation. But "overpopulation" as a generic term was used very effectively to convince Congress and the public that there was a justification for illegally removing between forty and fifty thousand horses. Overpopulation as a generic term continues to be waved as a major concern in order to now justify removals that serve to protect and preserve the 1964 forage allocation levels for livestock. Still BLM has not selected utilization sites to monitor horses nor have they applied population dynamics to their estimates of annual increases. They have failed to gather the information, required in their own field manual and recommended as essential by the National Academy of Sciences Phase I report, to pinpoint which species causes overutilization. Furthermore, they have eliminated the suitability criteria that would distinguish the amount of forage available to each species based on slope degree, distance from water, elevation, and other terrain features. Because horses are highly mobile and graze up to ten miles from water, on steeper slopes, at higher elevations, in rugged terrain, the forage that is available to them is not available to cow/calf herds which, by their nature, congregate near water. Allocations based on simply totalling the number of users without consider-

ing accessibility of forage to the user is a false basis for determining how many cows, how many horses and wildlife should be in a given area. The statutory restrictions on removals prevent reductions of wild horses to be based on this type of forage allocation. Yet this is the basis for reductions resulting from the livestock permit review and allotment evaluation process currently underway.

We see lack of accountability as a major problem. There is nothing to require BLM policymakers to follow the law, obey court rulings, or implement IBLA orders and nothing prevents them from rewriting the law by rulemaking. Nothing prevents policymakers from making great promises to the public but never taking the required steps to officially implement them in the field.

Perhaps it requires personal penalties to prevent this. In our opinion, the separation and balance of power between the Legislative and Executive Branches of government appear to be violated if BLM can change the words of the law in a rulemaking and take action on the proposed change.

API supports existing laws—NEPA, FLPMA, and the wild horse sections of PRIA. These three laws lay the foundation for a rational range management prescription and a sound wild horse program. They establish a procedural system that makes sense when used properly. Only by continued refusal to collect the required data and use the Congressionally mandated information and recommendations of the National Academy of Sciences Phase I report is BLM able to claim that competition exists and equal impact by horses and cows occurs.

We would oppose any legislation that authorizes a management program based on arbitrary numbers rather than range condition—whether its AMLs set in land use plans or livestock “preference.” We oppose any legislation to grant discretionary authority on removals to the Secretary. It is not the law that needs changing. It is regulations.

Off-the-land portion of the program

All of the problems in the “off the land” portion of the program, which is the processing, adoption, and maintenance of excess horses, result from the rulemaking that launched the massive removals. At this time these problems appear to be headed toward resolution with no major disagreements between public interest groups and BLM. Our concern is the possibility that BLM would allow this portion of the program to drive the “on the land” management program. Because the work in this end of the program is a spin off of on-the-land management decisions, budget forecasts and predictions for this end of the program are based on predicting future removals with no reference to the impact of current populations on the range or removals as corrective actions only. Setting arbitrary numbers in land use plans becomes an attractive management format to the budget planners and the policymakers. So the threat is that this administrative convenience and expedience will erode and undermine the very intent of the public mandate that is written into the law. Funds for ongoing monitoring, inventorying, observing populations, and studying range conditions in the field by BLM technical staff needs to be the primary budget concern in order to implement the law. Along these same lines, we strongly support contracting outside capture crews so that the wild horse staff is technically oriented as range conservation and wildlife experts rather than as wranglers and cowboys.

Recommendations

The problems are in the “on the land” management issues we’ve raised. Until regulations are brought into line with law, ongoing violations of law will continue. Therefore, we urge the Committee to consider the following as directives to BLM to:

1. Restore to the section 4700.0 Regulations those sections deleted in the 1984 rulemaking and bring all sections into direct alignment with law. This rulemaking needs to include a two-step appeals process so that decisions are multiple use and administratively reviewed at the same time, in the same place as livestock appeals. We ask that this rulemaking be completed within four months.

2. Issue an Instructional Memo to amend Resource Management Plans and existing Herd Management Area Plans to include objectives in keeping with the monitoring and inventorying report now being prepared by the Wild Horse and Burro Advisory Board. We ask that this be completed within four months of the final rulemaking.

3. Immediately issue an Instructional Memo to require all wild horse final decisions to be approved at the State Office level to assure accountability to a national constituency. We believe this will greatly reduce, if not eliminate, the number of protested and appealed decisions in the future.

We further urge this Committee to consider extending the term of this Advisory Board with special instructions to set up its own process for reviewing and overseeing.

ing the above rulemaking and amendment directives and to report back to Congress within ten months.

Also there is a dire need for a truth or consequence test for every document published by a government agency and a cost-efficiency standard to prohibit glossy "pr" productions. While we commend this Administration for opening the door on the free flow of public information to the public, for us to be an informed public we need facts not gloss and rhetoric; substance, not packaging. We urge Congress to recognize this as a general and basic need for every government Agency and program not just the protection of the public lands or wild horses.

STATEMENT OF JAMES DUFFUS

Senator REID. You are welcome.

Mr. Duffus.

Mr. DUFFUS. Thank you, Mr. Chairman. I will summarize my statement which has been submitted.

I would like to introduce Mr. Bob Robinson who is with me today, who is familiar with the details of our work on the wild horse program and the report that we issued last summer.

I am pleased to appear before you today to discuss our report that we issued last summer on the wild horse program. That report made a number of recommendations to improve program operations. Since we issued our report, we have not followed up with additional review work. However, on the basis of BLM comments on the report and our recommendations and subsequent information provided by BLM, the agency has begun taking action in response to our recommendations.

Overall we share BLM's view that the management problems associated with the wild horse program have proven to be among the most difficult that BLM faces. Satisfying the dual legislative mandate of protecting wild horse populations while at the same time protecting the rangelands they roam from deterioration is not an easy task.

Our August 1990 report found that the Federal wild horse program has experienced a number of problems. We reported that BLM was removing thousands of horses from the range each year without the land condition data that would enable it to determine how many wild horses the land could support, the carrying capacity, and how many needed to be removed to meet this capacity. We found that BLM was making its decisions on the basis of an interest in reaching perceived historic population levels or on the recommendations of advisory groups largely comprised of livestock permittees. Our findings were consistent with those of Interior's Board of Land Appeals which ruled that BLM removal actions aimed at reaching perceived historic population levels were contrary to the requirements of the Wild Horses Act.

We further found that the large scale wild horse removals BLM undertook in the mid and late 1980's overwhelmed this ability to routinely dispose of them. The subsequent buildup in holding facilities led BLM to devise and implement mass disposal alternatives that resulted in either widespread commercial exportation of the horses or a long-term Federal financial responsibility for the horses' welfare. Specifically, we reported that BLM's fee waiver adoption program led to the inhumane treatment and eventual slaughter of thousands of horses. Furthermore, we reported that

private wild horse sanctuaries would probably not receive its stated objective of being self-sustaining within 3 years.

Finally, we reported that BLM's program for enhancing the adoptability of horses by halter training them at prison facilities needed tighter management controls to minimize costs and improve performance.

We recommended specifically that BLM needs to expeditiously develop the prerequisite carrying capacity range condition data to help ensure that their removal decisions were made on a rational basis. We further recommended that future wild horse removals based on these data be made in the context of an overall range improvement strategy that also considered the impact of domestic livestock on range conditions.

On the disposal side, we recommended a number of specific actions to enhance internal controls over the prison training program and recommended that BLM consider other disposal and population control options for horses determined to be unadoptable such as sterilization and, where necessary, seek congressional approval to implement them.

By and large, BLM has responded favorably to our recommendations. BLM in Nevada has implemented a comprehensive management plan which will come up with forage allocation decisions, will arrive at carrying capacity decisions and make decisions on forage allocation on a determination of the range's carrying capacity and on the monitoring of the impact of the species on the range over time. BLM officials told us that these allocation decisions have been made on 20 percent of the range, and that the process to be completed will take about 4 or 5 years on a statewide basis.

As for BLM's procedures for disposing of wild horses removed from the range, the Bureau has made a number of improvements. It published a final rule in September to eliminate the powers of attorney which, in effect, was the primary mechanism used by individuals to obtain large numbers of wild horses which ended up in slaughterhouses. They also took a large number of improvements to improve the prison halter training program.

PREPARED STATEMENT

Let me close by saying, Mr. Chairman, that there is no easy answers to the problem of what to do with wild horses. BLM's adopt-a-horse program has shown itself to be capable of handling perhaps 5,000 to 6,000 horses a year. Removals higher than that call for consideration of a number of disposal options not currently in place. These options include sterilization and humane destruction of excess animals. A recent study by the University of Minnesota, which was reviewed by the National Research Council, concluded that implanting contraceptives into prime age mares would significantly slow the growth of the herds. The destruction of healthy unadopted wild horses, while authorized under the Wild Horses Act, if necessary to protect the range has been prohibited for the last 3 years by annual appropriations language and is not currently an option for herd management.

Mr. Chairman, that concludes my summary.

[The statement follows:]

STATEMENT OF JAMES DUFFUS III

Mr. Chairman and members of the subcommittee, I am pleased to appear before you today to discuss our report¹ on the federal wild horse program administered by the Department of the Interior's Bureau of Land Management (BLM). That report, issued last summer, made a number of recommendations to improve program operations. Since we issued our report we have not followed up with additional review work. However, on the basis of BLM comments on our report and subsequent information provided by BLM, the agency has begun taking actions in response to our recommendations.

Overall, we share BLM's view that the management problems associated with the wild horse program have proven to be among the most difficult that BLM faces. Satisfying the dual legislative mandate of protecting wild horse populations while at the same time protecting the rangelands they roam from deterioration is not an easy task. Furthermore, some management techniques employed by the agency in the past (particularly those involving the mass disposal of wild horses removed from the range) have either been rejected by the public and the Congress or are proving to be unworkable. After years of effort and the expenditure of millions of dollars, the same basic problems remain.

To fundamentally address the problems that have characterized this program over the years, management approaches built upon an overall rangeland strategy that addresses the impact of domestic livestock and wildlife in addition to wild horses are needed. On a number of recent occasions, BLM has signaled its commitment to managing the public lands in a fashion that better balances the interests of its traditional uses—including livestock grazing and mineral development—with those of more recently recognized needs such as wildlife, resource protection, and outdoor recreation. We are hopeful that in this spirit workable solutions to the wild horse management problem can be found.

In my statement today I would like to provide some very brief background information on the wild horse program and then summarize our report's principal findings and recommendations. I would also like to briefly discuss BLM's actions in response to those recommendations.

Background

Concerned about the possibility that wild horse populations in the West would be eradicated by widespread abuse and exploitation, the Congress passed the Wild Free-Roaming Horses and Burros Act in 1971 to grant the animals special protection. Reflecting subsequent concerns about the degradation of rangeland resources, the Congress amended the law in 1978 to authorize removal of animals determined to be "excess" in order to maintain a "thriving ecological balance" on the land. Under this authority, BLM has rounded up, removed, and disposed of more than 80,000 wild horses from federal rangelands since 1980. About three-fourths of these horses have been adopted through BLM's Adopt-A-Horse program, which allows individuals to obtain title to up to four horses a year for \$125 each. In an effort to enhance the adoptability of wild horses, BLM in recent years has been sending some horses to state prisons to be "gentled" by inmates who halter train them. However, all the wild horses removed from the range have not proven to be adoptable because of age or physical imperfection. Accordingly, from 1984 through September 1988, BLM placed about 20,000 wild horses with large-scale adopters who agreed to take a minimum of 100 horses when BLM waived the normal adoption fee (the so-called fee waiver program). This program was terminated in response to widespread congressional and public concerns about the treatment of the adopted horses. Since the summer of 1988, BLM has placed unadoptable horses in private sanctuaries.

Summary of principal findings

Our August 1990 report found that the federal wild horse program has experienced a number of problems. In particular, we reported that BLM was removing thousands of horses from the range each year without the land condition data that would enable it to determine how many wild horses the land could support (carrying capacity) and how many needed to be removed to meet this capacity. We found that BLM was making its removal decisions on the basis of an interest in reaching perceived historic population levels or the recommendations of advisory groups largely comprised of livestock permittees. Our findings were consistent with those of Interior's Board of Land Appeals, which ruled that BLM removal actions aimed at reaching perceived historic population levels were contrary to the requirements of the

¹Rangeland Management: Improvements Needed in Federal Wild Horse Program (GAO/RCED-90-110, Aug. 20, 1990).

Wild Horses Act. Because of the associated restrictions placed on removal activities, the number of wild horses removed has dropped dramatically in recent years.

We further found that the large-scale wild horse removals BLM undertook in the mid- and late-1980s overwhelmed its ability to routinely dispose of them through its generally successful Adopt-A-Horse program. The subsequent build-up of horses in holding facilities led BLM to devise and implement mass disposal alternatives that resulted in either widespread commercial exploitation of the horses involved or a long-term federal financial responsibility for the horses' welfare. Specifically, we reported that BLM's fee waiver adoption program led to the inhumane treatment and eventual slaughter of thousands of horses. Furthermore, we reported that private wild horse sanctuaries—the mass disposal option BLM designed to replace the fee-waiver adoption program—would probably not achieve its stated objective of being self-sustaining within 3 years; the government would either have to commit to long-term financial support of the sanctuaries or be prepared to have the horses returned to its custody.

Finally, we reported that BLM's program for enhancing the adoptability of horses by halter-training them at prison facilities needed tighter management controls to minimize costs and improve performance. These controls were needed to ensure that only horses of an adoptable age entered the training facilities and that the horses did not remain in these facilities for an excessive length of time.

Summary of recommendations

We made a number of recommendations to help correct the problems we identified. To help ensure that BLM's wild horse program removal decisions were made on a rational basis, we called upon the agency to expeditiously develop the prerequisite carrying capacity and range condition data. We further recommended that future wild horse removals based on these data be made in the context of an overall range improvement strategy that also considered the impact of domestic livestock on range conditions.

Concerning the disposal side of the program, we recommended a number of specific actions to enhance internal controls over the prison training program. We also recommended that BLM consider other disposal and population control options for horses determined to be unadoptable (such as sterilization) and, where necessary, seek congressional authority to implement them.

BLM response to our report

By and large, BLM has responded favorably to our findings and recommendations. Regarding our recommendation to make wild horse removal decisions in the context of an overall range improvement strategy, BLM is currently implementing a comprehensive management plan in Nevada, the state with the largest number of wild horses. According to BLM officials, Nevada forage allocation decisions among livestock, wild horses, and other wildlife will be based on a determination of the range's carrying capacity and on the monitoring of the impact of the species on the range over time. Officials estimate that allocation decisions have been made on 20 percent of the range and that the process will take about 4 to 5 years to complete statewide. According to BLM officials, current average wild horse removal and disposal costs are in the range of \$1,400 a head. With expenses at this level it is important that removal decisions be based on sound data.

As for BLM's procedures for disposing of wild horses removed from the range, the Bureau has made a number of improvements. It published a final rule in September 1990 that makes it extremely difficult for one person to gain control over a large number of wild horses. By eliminating the primary mechanism (powers-of-attorney) used by some individuals and groups to acquire wild horses for the purposes of sending them to the slaughterhouses, this rule significantly reduces the likelihood that wild horses removed from the range will experience commercial exploitation. BLM has also concurred in our judgment that the largest sanctuary will not become financially self-sustaining and that it should be closed when its 3-year trial period ends in August 1991. Finally, BLM has taken a number of actions to improve the prison halter training effort, including establishing quality standards for the training being provided, implementing tighter controls over the age of horses receiving training, and limiting the amount of time horses can spend in training facilities.

Let me close by saying that there are no easy answers to the problem of what to do with wild horses legitimately determined to exceed what the land can support. BLM's Adopt-A-Horse program has shown itself to be capable of handling perhaps 5,000 to 6,000 horses a year. Removals higher than this level call for consideration of a number of disposal options not currently in place. As stated in our report, these options include sterilization and humane destruction of excess animals. A recent study by the University of Minnesota, which was reviewed by the National Research

Council, concluded that implanting contraceptives into prime age mares would significantly slow the growth of the herds. Further, the study states that this procedure would be cost-effective compared with other management procedures available for controlling populations. The destruction of healthy, unadopted wild horses, while authorized under the Wild Horses Act if necessary to protect the range, has been prohibited for the last 3 years by annual appropriations language and is not currently an option for herd management.

This concludes my prepared remarks. I would be happy to respond to any questions at this time.

HUMANE DESTRUCTION

Senator REID. One of the things that we have not talked about here today, except in this brief statement by the General Accounting Office, is humane destruction. We have talked a lot about inhumane destruction. Horses are dying, as indicated in the films. I have pictures here from Dawn Lappin, color photographs showing the devastation of the herd out at Nellis. I would like to hear—maybe this is the wrong panel, but we have prohibited as a matter of law the killing of these horses. We have, I repeat, a lot of inhumane destruction.

What about humane destruction of these animals? Is that an option?

Mr. DUFFUS. That is certainly an option, but I guess the way GAO would view it would be that that is clearly a policy decision that would have to be made by the administration in conjunction with the Congress.

Senator REID. Well, I of course understand that, but I would like to hear from somebody as to what policy this Congress should take.

Ms. DAVES. Mr. Chairman, I think I could answer that. You used Nellis as an example of some of the terrible things that are going on when there are a number of horses on the range, but we do not really feel that that is representative of range conditions in every area where roundups are occurring. So, we would shift this back on the Bureau to go through and truly evaluate in a land management way the places where roundups need to be occurring and only take animals from areas that really need to have the removals done. In this way, we feel that we can solve the public relations problem that the Congress certainly would have if they mandate humane slaughter of any wild horses.

Senator REID. We have there, though, on the Nellis range 8,000 horses, and everyone has told us here that there are going to be large numbers of those horses dying, and an unpleasant death to say the least. I am not sure there is a pleasant one, but as you can see from these animals, they are dying of thirst and dying of hunger.

So, I would agree with you that probably that is not a viable policy decision we can make. You know, this hearing has not been pleasant.

Mr. Jamison, let me say this. It would appear that from the evidence that we have here today, that at this stage it is uncontroverted. We had earlier today an employee of the Bureau of Land Management, Fred Wyatt. We had Dayton Hyde, and we had Dave Catoore on one panel. Then we had some experts, Ph.D's types, that talked to us. It is clear that a couple things need to be done.

No. 1, there needs to be money spent for birth control measures of these horses. We have been told it will be about \$250,000—I believe that was the figure—to complete a study to determine if this new method works. The two scientists here felt very comfortable that it would work. So, that is one thing.

Do you disagree that that is something that should be done?

Mr. JAMISON. Absolutely not, Mr. Chairman. I think we need to—I will just leave it there.

Senator REID. No. 2, there is general agreement that we have improper modeling. You do not know how many horses are out there, do you?

Mr. JAMISON. No; we just do the estimates. Just like I think most have admitted, like the Park Service gentleman, they are undercounts.

Senator REID. We had here today somebody from New Mexico State, Dr. Walt Conley, who is an expert in this field, who says that for \$75,000 to \$100,000 a year, not only could we have an up-to-date modeling of the wild horse population, but for that you could bring it up to date every year for less than that.

Mr. JAMISON. We are just starting on that ourselves, on the modeling, Mr. Chairman.

Senator REID. Well, we are way behind the curve.

Mr. JAMISON. We are behind the curve.

Senator REID. Let me ask you another question that has been brought up here. We do not know what percent, but 65 to 75 percent of all the horses in the country in Nevada. How can we justify only 18 percent of your wild horse resource dollars being spent in Nevada?

Mr. JAMISON. Mr. Chairman, I would wholeheartedly agree with you. I think Nevada has been neglected on this program. We have smaller areas in the other States which we control very well. The horse problem is basically—

PREPARED STATEMENT

Senator REID. Wyoming is developing—before I forget, Malcolm Wallop wanted to be here and was unable to be here because he is very concerned about the burgeoning problem that is developing in Wyoming. His statement will be made part of the record.

[The statement follows:]

STATEMENT OF SENATOR MALCOLM WALLOP

Mr. Chairman, thank you for inviting me here today. I appreciate the opportunity to add a few words to this most important hearing. I know your agenda is ambitious and I will be brief. Wyoming is second only to Nevada in the overload of wild horses on our public lands. The problem is critical. The problem is out of control. Current management programs are not working. Steps must be taken to remedy an intolerable situation.

I will take an active role in the pursuit of appropriate legislative solutions. I support several measures—including selective sale authority—as a means to manage horse and burro population numbers. New management is unavoidable if we are to maintain the health of the herds and, at the same time, the condition of our public lands.

I bid you a good hearing and will review the comments with great interest.

I would appreciate it if the full text of my remarks be entered in the hearing record. In Wyoming we have a program called the Wyoming Stewardship Program. In this Program, ranches that use public lands as a part of their family ranches invite people with a variety of multiple use priorities to participate in a Stewardship

committee. This committee discusses land management ideas of common interest. The use and management of all ownerships used by the ranch are on the table for discussion by committee members. The only criteria for membership on the Stewardship committee is an attitude of give and take; i.e., a willingness to help find acceptable compromises to accomplish real stewardship of the land.

The most successful Stewardship program in Wyoming to date is the Sun Ranch Program. The Sun Ranch is located 90 miles south of Casper on the historic Oregon Trail and is a foundation Wyoming Ranch with continued existence since 1872. Over the last five years, members of this ranch's Stewardship committee have contributed both time and money to improved wildlife habitat, improved public recreation opportunities, improved riparian habitat, and improved ranch economics. But serious problems still remain unresolved—the land used by the ranch contains wild horses.

Attempts by members of the Sun Ranch Stewardship committee to involve people and groups that have wild horses as their priority have been unsuccessful to date. Attempts to have horse protection groups contribute money to improve on the ground habitat for horses and other grazing uses have been rejected. The reason given by the horse people and groups for their unwillingness to participate in the Stewardship program is that they won't join a group that, by definition, requires an attitude of compromise as a precondition for membership. As a result the horse issues in this Stewardship area are the only impediments to continued progress toward the complete stewardship of these lands.

None of the members of Sun Ranch Stewardship program want to remove all of the wild horses. The ranching community in Wyoming does not have that objective. Ranchers just don't understand why the so-called "Humane" groups support mass euthanasia of excess pets such as dogs and cats, but oppose sale authority of excess horses. The alternative of letting them starve to death on overgrazed open range seems drastically inconsistent. This year marks the 20th anniversary of the Wild Horse and Burro Act. For 20 years, the Bureau of Land Management, the United States Forest Service, the Congress, and the public have labored to find ways to implement this piece of legislation. The efforts to date have failed miserably to find long term solutions of how to incorporate the management of horses and burros into the multiple use mandate for public lands.

All of the parties involved share the responsibility for this failure. The BLM and USFS have failed in their trust responsibility to the public and to Congress by not always having the courage to convey the seriousness of the problems. Agency planning and management policies and regulations often encourage the management of public lands under the anarchical principles of special interest groups and other individuals who have free ranging influence over technical management decisions. Various segments of the public have failed in their responsibility to be willing to accept the compromises needed to solve the horse and burro management problems. Within the frame-work of the concept of multiple use, no one segment can dominate the others to the point of submission. Special interest groups and individuals are often relentless in their pursuit of their single use objectives. Land managing agencies should publicly state that they will discount public participation that is not consonant with their Congressional mandate of multiple use management of public land.

Congress must be willing to accept the difficult political cost of making those decisions needed to implement long term solutions to horse and burro management problems. These solutions must first and foremost, provide for the protection, and where needed, enhancement, of the basic resources of soil, water, and plant communities on public rangelands. These solutions need to provide reality. Only a framework for the management of public rangelands to perpetuate a thriving ecological balance between the basic resources and the legitimate users of those basic resources is reality.

It is a biological fact that the populations of large grazing animals such as horses and burros must be managed no less than wildlife and livestock must be managed. Congress and the public are simply going to have to accept this biological fact and take action that compliments ecological not political principles. A "no-action" alternative will only insure that some horses and burros will starve to death in those areas where they have over-populated their habitat. Excess horse and burro numbers will condemn competing wildlife to death by starvation. A "no-action" alternative to these issues will absolutely guarantee overgrazing on some native rangelands in the west. What a silly option these "conservation" organizations thus promote—death and natural destruction, not balance and health.

I am unwilling to accept a "no-action" alternative. To do so is inhumane, and I will not be a party to the perpetuation of this current stalemate. Management proposals that attempt to force the land to produce in excess of their long term ability to sustain invites certain disaster. Disaster that is both avoidable and irresponsible.

The issue of horse and burro management on public lands has reached the point of exhaustion and exasperation. All of us have a responsibility to find, accept, and fund, a long term solution to the existing problems within the horse and burro program. We can arrive at a common understanding of both the problems and the solutions if only we will. Once understood, we can implement them. To do otherwise is inhumane to the horses, burros, wildlife, and livestock, and abusive of the critical resources of soil and water. When politics lead to that—politics are no longer responsible.

MODELING PROGRAM

Mr. JAMISON. Can I outline where I think we ought to go because I agree—

Senator REID. Let me just finish this please, though, Mr. Jamison.

We need to have a modeling program. We need to have more work done on birth control.

Mr. JAMISON. Correct.

Senator REID. And we need to spend more money in Nevada.

Mr. JAMISON. I agree.

Senator REID. You have limited resources. We understand the difficulty of allocating these moneys.

The other question that is uncontroverted at this stage is that to keep a horse in, for example, the Palomino Valley Wild Horse and Burro Placement Center costs almost \$6 a day. Dayton Hyde testified that he can keep a horse in his facility for \$1.40 a day. So, let's say that he is short. Let's say that his figure is wrong, that it is going to cost \$2 a day, one-third of the cost of what it takes to keep a horse in Palomino Valley. How can we justify terminating the sanctuary?

Mr. JAMISON. Mr. Chairman, you are comparing apples and oranges. Really, Palomino is where you bring the horses off the range, you do all the veterinary work on them. It is a holding facility. I want to underline "holding." Also, we pay feed cost there, and then they are transported out. The two systems are totally different.

Senator REID. I know, but some of those horses stay over 1 year.

Mr. JAMISON. And that is unacceptable to me. What I would like to do is, if I could, outline where I think we ought to go, and I would like to work with the Congress on that.

Senator REID. Please. You tell us where you think we should go.

Mr. JAMISON. In general terms, I would like to shift to a downsized prison program because it is also very expensive, and we have been using the prison facility as basically a holding facility and not really having the inmates working with the animals in some cases to further their adoptions.

Second, I think that the most important thing we can do immediately is to pull off only adoptable animals off the range. At the same time, we ought to start experimentally on birth control measures. At least four to six herd management areas I would like to start in October doing that in Nevada. That is the only solution that I can see.

What we would do is there would be no holding of animals using that method because theoretically all the horses that come off would spend a short time at Palomino Valley, then would be transported either to the East through the adoption program, which has

worked very well—I am very proud of our people and the way they have handled that—and then really concentrate on those two things at the same time doing the monitoring, particularly in Nevada and in Wyoming. I agree with our friends here at the table, that we need some good data to bring it down.

We also have to remember that we have competing uses out there, as has been brought up by several. We have the wildlife use. We have livestock interests, and we also have wild horse interests. All those need balance. One ought not to take precedent over the other.

So, I think if we do that, at least there is a little light at the end of the tunnel.

Senator REID. Not much.

Mr. JAMISON. Not much, but a little.

Senator REID. To meet what you are talking about, we would have to remove 14,000 horses a year.

Mr. JAMISON. That would be to bring it down in 5 years. You can extrapolate out to the future if we do less numbers than that, yes, sir.

Senator REID. I would think that—I am sure nothing is going to happen in the next couple months, but I would suggest anyway that by the time this appropriations bill is finished, that there will be some language as it relates to the sanctuary program.

Mr. JAMISON. I assume that's your option, sir.

Senator REID. You know, it is the best public relations program we have ever had with wild horses. We have one film that wins some kind of an award for showing the horses running through the grass, and we have another film that wants to make us all throw up. One is in a sanctuary and the other is what is actually happening.

Mr. JAMISON. May I comment? I have no problem with the sanctuary in theory, but I have to look at it from a pragmatic budgetary standpoint. The two sanctuaries that are in progress now are basically taking a quarter of our budget, and that is handling maybe 4,000 head of horses. We have 50,000 head of horses to worry about, and I have to sit back and look at it from a management standpoint for the overall good. I want to emphasize overall good of the entire program. It is not easy. I don't like doing it the way we are doing it, but that's my only option.

Senator REID. Mr. Jamison, while you were not here, I was very careful to state—you know, I wish I could blame the problems of this program on you. I wish I could blame it on Dan Quayle, anybody. [Laughter.]

But the problem is that we, either the executive branch of government or the legislative branch of government, have simply not done our job. We started out with a program 20 years ago. We had 30,000 plus horses. Now we have at least twice as many.

Mr. JAMISON. And twice the problems.

Senator REID. And the horses are not as well off as they were 20 years ago.

Mr. JAMISON. May I comment? I agree, and that is why I laid down probably the most unpopular option, but it is probably the most logical. In the end it may be the best one.

The easiest way out is for me to say let's keep the sanctuary going. The one in Oklahoma is having more financial problems raising money than the one in South Dakota. I think Mr. Hyde has raised \$250,000 plus, and the one in Oklahoma with the last report we had has only \$1,500. We are spending literally hundreds of thousands. So, I have to look at it from a pragmatic standpoint.

Senator REID. Maybe we should only close one of the sanctuaries then.

Mr. JAMISON. I would ask you to visit with the Senator from Oklahoma.

Senator REID. Let me ask Mr. Satterthwaite here. What are your recommendations for improving the administration of the wild horse program? You are a rancher. You see this from a perspective of the—in some instances—we do not have it on the Nellis range, but other places we have the horses competing with sheep and cattle. What do you see?

Mr. SATTERTHWAITE. Well, to improve the situation, I think the first thing that we have to do is to recognize that there is an appropriate management level, and we have to stick to that level.

We also have to recognize that there are recognized herd management areas, and those horses are not limited to those particular areas.

Senator REID. And they should be. Isn't that right?

Mr. SATTERTHWAITE. And they should be. If our livestock are out of their particular area, we are cited for a trespass. However, the horses are out of their particular areas, nothing happens. Those horses just continue to expand, and basically the reason they expand is that they are overcrowded in their horse management areas. They have to expand for food and water.

Senator REID. Let me ask you this. During the past couple of decades, have you been able to see the trend of the numbers of livestock that are now competing with horses? Has it changed over the past 10, 20 years?

Mr. SATTERTHWAITE. Well, you can definitely see it. I believe in 1971 when the act came upon us, the number of horses that we had were just basically an add-on to the—I mean all of the AUM's at that time were adjudicated. So, those particular horses were just an add-on. Now that we are at the numbers that we're at, the add-on is not going to handle it. They're looking now for food and forage for those animals. The only way that they can get food and forage is either to decrease livestock or wildlife, and you now they are not going to decrease wildlife.

Senator REID. Have you or your neighbors suffered damage to your private lands and private investments as a result of wild horses? Are you familiar with any instances in that regard?

Mr. SATTERTHWAITE. Well, in some areas we have. I would say basically it has been the water developments. If you were to look at a map of the State of Nevada, you will note that most of the water is privately owned, and most of the other land is owned by the Federal Government. But the waters are basically privately owned, and that is where those horses water. If we have the damage, it is usually on a water development.

Senator REID. Well, ladies and gentlemen, this has been a most productive hearing. Like a lot of things, I think that ignorance is

bliss, and I think we have been very ignorant with this program. We have asked the administrative arms of this Government to perform miracles without any money.

Take the situation at Lake Mead. We have asked the Superintendent of the Lake Mead Recreational Area to maintain a facility for 9 million visitors a year, but yet we do not give him 5 cents to handle 1,700 burros that come into that area.

We spend \$14 million, \$15 million a year—isn't that right, Mr. Jamison—on this program, but we are not willing to spend an extra \$100,000 to develop a modeling program so that every place you go people do not try to make a fool of you because you have the wrong numbers.

There are methods that are available someplace, with a little more work, to develop a decent birth control program with these horses. We do not have it yet. But yet, we criticize the continual multiplication of these horses without providing the administrative agencies of this Government the tools to work with.

So, I have to be very candid. I wish I didn't know as much as I do now because I think we have to now act accordingly and try to bring this problem into some balance. So, I would ask all the witnesses here if they—we have some written questions. We want to do something in this year's appropriations bill. So, we would ask that you all respond within 10 days to the written questions that we give you.

Mr. JAMISON. Mr. Chairman.

Senator REID. Yes, Mr. Jamison.

Mr. JAMISON. I would just like to say that on behalf of the administration we are pleased that you are taking a heroic stand and at least trying to address the issue. This tends to get swept under the rug, and I think that it is time that we quit the band-aid approaches and really get at the root of the problem and lay out a 3-, 4-, or 5-year plan to get to it. I applaud your efforts on this, and we stand ready to work with you.

Senator REID. I appreciate that. We have some competing interests. We have had two cowboys here today basically testifying as to their view. We have had a number of people whose hearts are as big as their bodies who are concerned about the suffering of these animals. We have bureaucrats who have testified as to what they are trying to do to handle the problem. We are going to have to dive in and make some hard choices because if we continue going the way we are, it is going to be extremely bad for people and for animals.

So, I appreciate very much everyone's attendance. We would request that you respond quickly to the questions.

CONCLUSION OF HEARING

Thank you all very much, the subcommittee will recess, subject to the call of the Chair.

[Whereupon, at 12:27 p.m., Thursday, June 20, the hearing was concluded, and the subcommittee was recessed, to reconvene subject to the call of the Chair.]

Material Submitted Subsequent to Conclusion of Hearing

[CLERK'S NOTE.—Additional material was received by the subcommittee subsequent to conclusion of the hearing. The statements will be inserted in the record at this point.]

STATEMENT OF KAREN A. SUSSMAN, PRESIDENT, INTERNATIONAL SOCIETY FOR THE PROTECTION OF MUSTANGS AND BURROS [ISPMB], SCOTTSDALE, AZ

The International Society for the Protection of Mustangs and Burros, the oldest and largest wild horse and burro organization in the United States, is honored to give written testimony for the U.S. Senate Oversight Hearing on the Bureau of Land Management's Wild Horse and Burro program.

A full understanding of the Wild Horse and Burro program and its issues are necessary in order to achieve solutions that will effect positive changes. The program can easily be understood with the following analogy.

When the Wild Horse and Burro program was born in 1971, it was to be the birth of an unusual child in the BLM's family of resources. In fact, in many ways, it became the unwanted child because it was so different. From 1980 until 1990, this poor child was ignored and left to mature without parental guidance unless a crisis ensued. Often times, favoritism was shown to the other siblings (range and its users, livestock; other wildlife; riparian; recreation; etc.) creating more crises in the family. What the parents did not recognize was that this unusual child has special talents. Talents that today we would call gifted, brilliant, or genius. This child has the potential to excel in spite of the lack of awareness of its parents; however, it will never transcend to its greatest potential without the full support, love and nurturing of its parents. The community (public) and the child's teachers (proponents) fully understand the cultural, social, and historical values that this child has to offer as it develops into maturity.

What is really necessary to achieve optimum parenting of the resources by the BLM? The answer is always through awareness, education, integrity, honesty, trust, compliance of the laws, and unbiased management.

The issues that cloud this program's genius have developed over the last decade. If followed implicitly, the laws that govern this program (Public Law 92-192, FRIA, FLPMA, NEPA) would insure sound management practices; however, from 1981 onward, BLM eliminated many statutory directives and regulations from its Code of Federal Regulations (CFR's). Only after several recent IBLA decisions was this brought to the public's attention.

The following changes in regulations brought about crises management by the BLM. In 1981, planning criteria was given to operations. In 1984, monitoring and inventorying was deleted from operations; however, most critical was the interim rule change of the statutory definition of excess which allowed the removal of 35,000 horses until it was disapproved in the final rule making of 1986. This interim action from December 1984 to March 1986 was one of the longest interim actions in its history.

Funding was easily granted for removals during this period by delaying the appropriations bill for four years during which time four consecutive continuing resolutions carried roundup funds from fiscal year 1985 to fiscal year 1988. It must be noted that in fiscal year 1986, the House Appropriations bill stated "no funds for roundups".

By 1988, over 100 Herd Management Areas (HMA's) were eliminated through Land Use decisions not based on monitoring, inventorying and protection of habitat.

Massive roundups resulted in crises and controversy. Horses stood in feedlots. Much needed funds were diverted from managing horses on the range to placement ("disposal," BLM language) off the range. Removal and disposition currently use 67 percent of the budget while actual management on the range receives only 12 percent of the budget.

These massive removals over the last decade have not resulted in any improvements of range condition as noted in the following quotes from the recent GAO report on Wild Horses:

"Despite nearly 2 decades of BLM efforts to remove wild horses from federal rangelands, we reported in June 1988 that about 60 percent of BLM allotments, where conditions were known, were in unsatisfactory condition. Further, nearly 78 percent of the allotments where trend information was available were either stable or declining further. With such a negative picture of overall range conditions, wild horse removals have not been sufficient to restore federal rangelands as a whole to a thriving condition. Further, BLM could not provide us with data to demonstrate where horse removals have materially improved the specific areas from which they have been removed."

The following reasons the GAO gives for lack of improving range conditions from horse removals are of critical importance in achieving a prescription to sound management.

"Wild horse removals have not demonstrably improved range conditions for several reasons. First, wild horses are vastly outnumbered on federal rangelands by domestic livestock. In fiscal year 1986, about 4.1 million domestic livestock graze BLM allotments compared to an estimated 42,000 wild horses. In total, the domestic livestock consume 20 times more forage than wild horses. Even substantial reductions in wild horse populations will, therefore, not substantially reduce total forage consumption.

"Second, wild horse behavior patterns make the horses somewhat less damaging than cattle to especially vulnerable range areas. Available horse behavior studies demonstrate that, unlike cattle which concentrate in lower elevations, wild horses range widely throughout both steep, hilly terrain and lower more level areas. Range conditions in the steeper hillier areas where cattle do not frequent are generally better than in lower areas. Reducing wild horse populations in these areas has been shown by experience to have a negligible effect on the resource. In adjoining streams and other water sources, cattle do more damage because they tend to "camp" in the areas instead of watering and moving on. As we reported in our June 1988 report on riparian area management, poorly managed domestic livestock grazing is the primary cause of damaged riparian areas. In these areas, wild horse removals can be helpful but without improved domestic livestock management as well, the overgrazing problem cannot be solved.

"Third, wild horse removals have taken place in some locations not being damaged by widespread overgrazing. For example, in Wyoming, a horse protection group wrote BLM in 1983 asking why so many wild horses were being removed from a particular herd area when a BLM draft environmental impact statement showed that the area was not damaged by widespread overgrazing. BLM's 1983 final environmental impact statement for this area agreed that widespread overgrazing was not a problem but stated that the herd reduction from an estimated 1,464 to 470 horses was based on a need to alleviate "isolated" overgrazing around water resources. Other BLM documentation, however, attributed the riparian area problems in this location to overgrazing by domestic livestock, not wild horses.

"Fourth, in many areas where wild horse removals have taken place, BLM authorized livestock grazing levels have not either been reduced or have been increased thereby largely negating any reduction in forage consumption.

"It is apparent that wild horse removals alone will not generate the widespread range improvement that is so badly needed. More intensive livestock management and reductions in authorized livestock grazing levels must also be pursued if range conditions are to improve significantly. Moreover, reducing authorized grazing levels would likely be cheaper than wild horse removals to achieve the same reduction in forage consumption."

Unbiased management of public lands to improve range conditions and protect habitat is crucial to a sound management prescription.

The changes in the regulations allowing massive removal of horses also resulted in creating a lack of trust and credibility of the BLM by proponents of the program. The fee-waiver program was a prime example. GAO states, "By its very design the fee-waiver program was a prescription for commercial exploitation of wild horses." "As was predicted, our work confirmed that thousands of fee-waivered horses were sent to slaughter soon after title passed."

Prison training programs proliferated without establishing guidelines and criteria until just this year. Sanctuary guidelines and criteria were established as recently as 1990. The manual for adoption was written last year after this program's existence since 1976. Because each state manages their own program through BLM's decentralized scheme of management, there is a lack of communication and consistency needed in the Wild Horse and Burro program which spans 49 out of 50 states.

This unusual child of the BLM needs a form of centralized management to insure efficient operation. Often times the wheel is reinvented in each state resulting in the unnecessary use of tax dollars for the same invention.

Most important to note is the lack of goals and objectives for the Wild Horse and Burro program. Whether this resulted from the unwanted child syndrome or each state operating its own program is rather irrelevant. What is significant is that a corporation or organization is only as strong as its vision, its goals, and its objectives. It appears through actions over the past decade that the unwritten goal has been to remove horses and manage crises. Even recently, wild horses and burros were excluded from BLM's mission statement which listed all of its resources.

When massive removals began, money was cut from the Public Affairs budget for advertising and marketing wild horses and burros. To date a positive program is still not in effect and the only advertising is for adoptions and off the range programs. A strong public affairs plan will increase public awareness about horses and burros on the range. This plan could easily be tied in with Recreation's watchable wildlife program. There is an increasing demand from foreign tourists to view wild horses in their natural habitat. Open land is a valuable asset in an ever shrinking world. A quality public affairs plan targeting appropriate audiences would increase the demand for horses in the adoption program. It would also allow the BLM to be highly selective in determining who is a qualified adopter. Again, each state's advertising is as good as the Public Affairs awareness and interest in the program.

The current BLM's wild horse and burro vocabulary discourages the demand for horses and creates a negative impact on the public, i.e.: "horses are overpopulating", "destroying the habitat", "too many", "need to get rid of", "dispose of", etc.

Finally, the BLM must be held accountable for its actions to Congress and to the people of the United States. There are no checks and balances except for pressure exerted from outside interest groups. IBLA has been one avenue by which interest groups can appeal a decision by the BLM. Now with a proposed rule change in the making, BLM would be able to put into Full Force and Effect all horse and burro removals. This would remove decisions from the appeals process to the Administrative Law Judges and would become cost prohibitive to those who feel the necessity to appeal a decision. The proposed rule change would grant the Secretary discretionary authority on removals; however, IBLA clearly refuted this claim in a previous case by declaring "the sole and exclusive authority is in the law."

We hope that with this hearing and the new administration within the BLM that positive changes in the Wild Horse and Burro program will soon be forthcoming. In summary and in order of importance, our recommendations are as follows:

1. The BLM must be required to be in strict compliance with the laws governing the Wild Horse and Burro program and must be held accountable for its actions.
2. CFR's must be in compliance with the statutory language of the laws.
3. Increase in funding must be appropriated to accomplish monitoring of habitat and inventorying its users. Monitoring must differentiate utilization of habitat by livestock and horses and other herbivores where competition could exist. When more intensive range management is accomplished there will be less of a need for funding for the off the range program.
4. Cattle reductions must take place to improve range conditions.
5. Unbiased management of public lands, free from political and economic influences, will pave the way to improved range conditions.
6. A mission statement, goals and objectives for the Wild Horse and Burro program, which are in compliance with the law, must be adopted bureau wide.
7. The program needs to be restructured and coordinated under one nucleus of the BLM to improve quality, consistency, communication and efficiency. This infrastructure should have authority over the individual states and must be operated without political and economic influence and with checks and balances.
8. A strong and positive public affairs plan must be developed to promote the program both internally and externally.
9. Criteria and guidelines for any action must be well thought out and in compliance with the law before any action is taken.

When the above recommendations become operational bureau wide, sound management practices will result thereby establishing a relationship of trust and credibility within the BLM and with its partners and public.

STATEMENT OF MICHAEL BLAKE

Today in Nevada, America's wild horses will die. More will die tomorrow. These horses are the blood of the land and each one that dies takes another piece of our country with it.

We can no longer let America be depleted in this horrible way. There is still time to dedicate ourselves to the recovery of America. But we must move swiftly and decisively.

I believe that the preservation of wild horses leads us to the preservation of our country. And the preservation of our country leads to the preservation of ourselves.

We are praying for action and leadership.

STATEMENT OF PAULA JEWELL, PROJECT COORDINATOR FOR WILD HORSE ISSUES IN THE WILDLIFE AND HABITAT PROTECTION DIVISION, HUMANE SOCIETY OF THE UNITED STATES, WASHINGTON, DC

Introduction

Good afternoon. I am Paula Jewell, Project Coordinator for Wild Horse Issues in the Wildlife & Habitat Protection Division of The Humane Society of the United States (HSUS). I am pleased to have this opportunity to address the Wild Horse and Burro Advisory Board.

The HSUS is this nation's largest animal protection organization, with more than 1.3 million members and constituents nationwide, with several regional offices; an educational division, a team of investigators, legislative experts, and an animal control academy. We provide substantial programs focused on humane stewardship for companion animals, laboratory animals, farm animals, wildlife, and wild horses and burros.

In the interest of time, I will limit my statement today to issues affecting wild horses on the range, such as removal decisions, range conditions and monitoring.

Background

I would like to begin by urging this Board, throughout all its deliberations, to remain committed to its responsibility to make objective decisions regarding the future of America's wild horses and burros. Such decisions can only be made if this Board critically reviews current Bureau of Land Management (BLM) policies and focuses on finding true solutions to the many challenging problems present in the programs. In that light, I urge the BLM to seriously weigh the contents of the August, 1990 GAO report—the problems discussed in that report echo the concerns that wild horse protection and humane organizations, including The HSUS, have had for over 20 years. I further urge the members of this Board to address these issues in broad programmatic terms, rather than narrowing their focus to issues specific to individual herd management areas. Only by assuming a broad orientation to these issues, and implementing structural changes, can this Board achieve long-term and far-reaching improvement, and truly fulfill the prescribed goals of the Advisory Board.

Overview

The HSUS has been distressed that the BLM's decisionmaking regarding the number of wild horses to be removed from federal rangelands has not been based on evidence that existing numbers exceed the capacity of the land. Further, although improvement of range conditions has been the alleged focus of wild horse removals, neither reductions in livestock grazing levels nor range improvement plans accompanied wild horse removals. Consequently, range conditions have not been significantly improved, and a number of other problems have resulted, including an overload in the Adopt-a-Horse program. The BLM developed fee-waiver, sanctuary, and prison-training programs to deal with the overload; however, these programs have been wrought with problems, including abusive and exploitative treatment of the wild horses and increased financial burden for the government. The GAO report clearly reaches the same conclusions.

Concerns

Specifically, The HSUS does not believe that there is adequate justification for the BLM to perpetuate current levels of wild horse removals. To rationally determine if removals are necessary for effective public land management, the BLM must evaluate data on carrying capacity and the impact of wild horses on range resources. However, carrying capacity data is frequently unavailable within BLM or is so old that it is unusable. Further, the information necessary to determine impacts of wild horses, such as forage consumption by individual species, has not been determined by current monitoring techniques. Such information is critical to conduct rational wild horse management, to determine the suitable combination of species on the public lands, and to effectively improve range conditions. BLM's continued round-ups despite this information gap lead us to conclude that the BLM has been basing removal decisions on totally inappropriate factors, such as returning wild horse populations to historic levels, or serving the interests of livestock ranchers. For exam-

ple, as discussed in the GAO report, 88 percent of the removals conducted in herd areas in Nevada were based on population data from 1971 (p. 23). In addition, advisory groups designed to assist removal decisions have been dominated by livestock permittees, and have virtually ignored wild horse interest groups.

We question the stated purpose of wild horse removals—to improve rangeland conditions—since no significant improvements in conditions have been achieved from removals thus far. As expressed by wild horse interest groups, and supported by the GAO report, domestic livestock consume 20 times more forage than wild horses, and do more damage to range resources than horses (p. 24). In fact, the 1988 GAO report specifically stated that poorly managed livestock grazing areas cause the primary damage to riparian zones, and without improved livestock management, range resource loss cannot be mitigated. The BLM's justification is further weakened by the fact that they have removed horses from areas that they recognize as not being damaged by overgrazing. Further, many wild horse removal areas have either had no change or, even worse, an increase in livestock grazing levels. It is widely recognized that reducing livestock grazing is a more cost effective method of reducing forage consumption than wild horse removals and disposition. Yet, BLM continues to use the justification of overgrazing to conduct wild horse removals.

We believe that the points above illustrate the serious problems in the basic structure regarding management of the public lands. We believe that the existence and proliferation of wild horse disposition programs, such as fee-waiver, sanctuaries and prison programs, are symptoms of the critical problems in BLM's management of wild horses on the range. We urge this Board to seriously consider our recommendations, as follows.

Recommendations

We request this Board to approach solutions to problems identified in BLM's wild horse and burro program in the most basic context—changing management of the public lands to reflect equitable resource allotment to wildlife, wild horses and burros, and livestock. This Board must utilize existing data, such as the GAO report, to implement concurrent programs to improve range conditions and provide equitable resources to all public land interests.

Specifically, we request the BLM to, as quickly as possible, develop all data necessary to make sound management decisions including carrying capacity, range condition and species-specific information.

We further recommend that the BLM conduct rational public lands improvement efforts based on the information discussed above. Such efforts should include reducing the impact of livestock grazing, and exploring all non-invasive options before conducting removals of wild horses. If, after this data is thoroughly analyzed, it is determined that wild horses should be removed to improve rangeland, livestock grazing levels must also be decreased. Reductions should be based on the relative numbers of each species.

We urge the BLM to continue considering fertility control as an option to maintain supportable populations, in particular, immunocontraception. We also recommend that the BLM continually develop monitoring information regarding the condition of the range, wild horse population levels, mortality and foaling rate, and species-specific use information, and distribute it as part of the public review process regarding non-emergency removal plans. In order to soundly manage these lands, such data must be made available before removals are planned. Further, we recommend that funds to conduct wild horse removals not be granted until such documentation is submitted and reviewed. Frequently, interested parties are frustrated by the public review process, because there is limited time to respond to draft removal plans and often the planning is too far along to be stopped. If more information were available at the initial stages of the process, interested parties would be more able to participate in the planning, and assist in achieving more equitable decision-making.

Conclusion

In closing, I urge this Board to recall that in the Wild Horse Act, Congress declared that wild horses and burros are "an integral part of the natural system of the public lands." I respectfully urge this Board to recall this intent and fulfill their commitment to ensure equitable resource allotment for all public land interests, not just livestock grazing. I further urge this Board to recall that Congress declared that "wild free-roaming horses and burros are living symbols of the historic and pioneer spirit of the West" . . . "they contribute to the diversity of life forms within the Nation and enrich the lives of the American people." These words reflect the spirit of the Act, and pride in America's heritage. I urge each member of this Board

to conduct all business of the Board with this spirit in mind, and to pledge a true commitment to improving the BLM's wild horse and burro program.

STATEMENT OF THE AMERICAN HORSE PROTECTION ASSOCIATION, INC., WASHINGTON, DC

The American Horse Protection Association, Inc., appreciates this opportunity to express its views concerning the Bureau of Land Management's program to protect wild horses and burros. AHPA is a non-profit national humane society dedicated to the welfare of horses. One of its principal interests has been the protection and preservation of the wild, free-roaming horses and burros which inhabit the federal public lands in ten Western states.

The public debate over the wild horse program has grown in volume over the last six years, as the controversial removals of huge numbers of wild horses and burros have triggered abuse and mismanagement in the programs that handle animals once they have been taken from the range. Since fiscal year 1985 Congress has appropriated nearly \$109 million to allow BLM to remove about 64,500 animals from the public rangelands. The fiscal year 1992 appropriation request, if approved, will raise those totals to \$122.6 million and 69,000 removals. The wisdom of these expenditures has repeatedly been questioned by AHPA and other humane and wild horse organizations.

The question squarely before Congress this year, in light of the General Accounting Office's August 1990 report, *Improvements Needed in Federal Wild Horse Program*, is whether additional tens of millions of dollars should be appropriated to perpetuate so flawed a program.

AHPA believes that Congress can no longer defer a fundamental re-evaluation of BLM's administration of the wild horse and burro program, and applauds Senator Reid for convening these hearings. They will, for the first time in many years, provide an opportunity for Congress to measure BLM's actions against the requirements of the Wild, Free-Roaming Horses and Burros Act.

I. Management issues

It is apparent that many of the most obvious recent problems in the wild horse program—the fee waiver adoption debacle, the breakdown of the normal adoption program, the ineffectiveness of the prison training programs and the uncertain future of sanctuaries—have their origin in the large-scale removal program begun in fiscal year 1985. The enormous flow of horses off the public lands resulted in pressure to create a variety of outlets, other than the normal adoption process, for "excess" animals. These outlets were poorly conceived and badly implemented. The problems that occurred were predictable, and in many cases were predicted by AHPA and other humane groups.

Throughout, BLM's fundamental operating assumption—that wild horse and burro populations had to be reduced from about 60,000 in 1984 to about 30,000—was never examined closely. Yet that assumption was ultimately responsible for the problems that received public attention.

In the last two years evidence has accumulated that BLM's overall management objective was misguided. The Interior Board of Land Appeals has decided a number of cases (brought principally by the Animal Protection Institute) that question the validity of BLM's removal decisions. The IBLA has upheld challenges to proposed removals in over 20 wild horse Herd Management Areas, involving over 2,400 horses, on the ground that BLM has not made the showing required by the Wild Horse Act: namely, that removals are necessary to "restore a thriving natural ecological balance to the range, and to protect the range from deterioration associated with overpopulation." 16 U.S.C. § 1333(b)(2).

More recently, the United States District Court in Billings, Montana, ruled in April in a suit brought by AHPA and The Humane Society of the United States that BLM had failed to follow its own planning and environmental analysis regulations in proposing to reduce the size of the herd on the Pryor Mountain Wild Horse Range. The Pryor Mountains are home to one of the unique wild horse herds in the country—horses that have Spanish barb ancestry, a wide variety of styles and colors, and a history that apparently predates the arrival of white settlers. The Range was created by order of the Secretary of the Interior three years before the Wild Horse Act was enacted.

Finally, in a comprehensive study, the General Accounting Office has questioned the validity of BLM's approach to wild horse management. Basing its critique in part on a review of BLM data and the IBLA decisions, GAO found that:

- BLM rarely had sufficient information to determine how many wild horses the range could support, whether the animals were causing damage, or how many should be removed from herd areas.
- The massive removals of wild horses begun in fiscal year 1985 have not improved rangeland conditions. The lack of improvement is largely attributable to BLM's failure to reduce domestic livestock grazing, which accounts for 20 times the forage consumed by wild horses. In some cases, removals of wild horses have been offset by increases in livestock use.
- Paradoxically, although BLM frequently removes wild horses without adequate data of need, it justifies failing to reduce livestock use on the ground that its range condition data is incomplete.

This report, which is the third in a series criticizing the Bureau's range management programs, gives strong, objective support to the contention of humane groups that, in many instances, BLM's program decisions regarding wild horses are based on a policy of accommodating livestock interests rather than any clearly defined need to remove wild horses for environmental reasons.¹

This policy should not be allowed to continue. Congress cannot appropriate millions of dollars every year for a program whose underlying premise—the need to drastically reduce wild horse populations—is so discredited.

This is not to suggest that wild horse populations should be allowed to increase without limit, or that periodic removals to keep those populations in balance with their environment are unnecessary. AHPA believes, however, that when appropriate management levels for wild horse or burro populations are set, and removals are proposed, they must be justified in a way authorized by the Wild Horse Act. The removals must be based on a showing that they are necessary to achieve and maintain a thriving natural ecological balance on the public lands.

This requires that BLM have current information regarding range conditions and, in particular, which range user is responsible for, or contributing to, documented resource problems. It requires an understanding of which animal group—livestock, wild horses and wildlife—eats what plants, from what locations, and during what seasons of the year. BLM generally does not have this specific data, and its basic data on range conditions is too often out of date.

Furthermore, as range conditions improve over time, wild horse populations ought to increase. Yet nearly every range management plan that AHPA has reviewed allocated all additional forage to livestock—even though wild horse population reductions made some of that forage possible.

II. Population control measures

BLM's fiscal year 1992 budget justification states that to reduce the number of older or unadoptable horses being removed from the range, it will implement a "selective" removal program in fiscal year 1992, returning about 15 percent of the captured animals to the range. In addition, BLM states that it may begin operational use of chemosterilant or surgical means of population control. Its fiscal year 1992 budget justification states that a portion of the mares returned to the range will be treated, if analysis of previous research indicates the "efficiency" of the techniques.

AHPA is concerned that these proposals will be put in place in the same way that sanctuaries and the prison training programs were: without a clear understanding of what role they should play in the overall protection and management of wild horses, and without any criteria to insure that they will work.

Both selective removals and fertility control techniques pose difficult issues for long-term herd welfare. While the theory behind them is easy to understand, they cannot be used haphazardly. Selective removals will tend to skew sex and age ratios abnormally. To date, the implications of fertility control programs in horses have received limited study and little public discussion. Even if reversible, they will tend to produce an aging herd that may not have enough young animals to insure replacement or sufficient genetic diversity.

AHPA believes that these proposals have, at most, a limited role in the wild horse and burro management; they definitely are not a comprehensive solution to the ills that plague the program. Whether they should be used at all, under what circumstances, and in what kinds of herds, must be decided in advance, and as yet no criteria exist to make those decisions. If they are used, a thorough understanding of a herd's demographics will be necessary to insure that the viability of each herd—especially the smaller ones—is not destroyed.

¹Range management plans calling for wild horse reductions normally maintain or increase the number of AUMs allocated to cattle and sheep.

III. The adoption program

AHPA believes that the normal adoption program must remain the primary disposition for most wild horses and burros removed from the public lands, and that BLM's priorities should emphasize it. However, as of September 30, 1990, BLM closed its most successful Eastern contract adoption centers, at Cross Plains, Tennessee. Its operators had complained for at least two years about its inability to get a sufficient number of adoptable horses. Paradoxically, earlier this year BLM published a Request for Proposal for a new contract center to serve the Southeastern United States.

BLM's recent emphasis on the prison training program and wild horse sanctuaries has hurt the normal adoption program, and it is clear that neither has worked particularly well. GAO's report concluded that the prison program has not been cost-effective, in that the prisons were housing far more horses than they could train, keeping animals at the facilities for too long and losing adoption opportunities. Yet BLM's fiscal year 1992 budget justification shows that the Bureau will continue to use the prisons as holding facilities for 850 animals, while only 415 will be kept at Eastern adoption centers, where adoption demand is strongest.

There is simply no reason for the prisons to have their corrals full of hundreds of horses that are neither being trained nor made available for adoption where demand exists. Warehousing horses in Western prison systems, while closing adoption centers where adoption demand is strongest, is self-defeating.

There are two wild horse sanctuaries in operation; one in South Dakota, the other in Oklahoma. Together they house about 3,500 animals. GAO has criticized the sanctuary system for excessive cost, particularly higher-than-expected operating expenses and the fact that the anticipated financial self-sufficiency of the sanctuaries within three years would not be achieved. In fact, BLM apparently has decided that funding for the South Dakota sanctuary will not continue beyond its three-year anniversary date in August even though it has not become financially self-sufficient.

AHPA believes that BLM's decision is correct, but is concerned about the fate of the horses on the sanctuary. Some may be readily adoptable; South Dakota received a large number of younger, colorful animals, despite the fact that sanctuaries were created for "unadoptable" horses. Other animals, however, will be hard to place. The Association is aware that the Wild Horse and Burro Advisory Board has recommended that BLM try to find vacant or under-used herd management areas for these animals, and that other proposals are being discussed. The important point is that BLM plan for the closing so that all of the horses are assured a safe and humane destination.

IV. Conclusion

There is a great deal wrong with BLM's administration of the wild horse and burro program, but the problems do not come from the Wild Horse Act itself. While the Act isn't perfect, it is basically sound. Congress won't find solutions to the problems in the program by amending the Act—it must look, instead, at whether BLM is doing what the Act requires.

The past six years have seen a series of "quick fixes" that have had superficial appeal, but haven't worked. The reasons for their failure have been predictable. The wild horse and burro program will not improve if BLM and Congress rely solely on the latest quick fix proposals—selective removals and fertility control.

The flaws in the wild horse program are, as GAO has reported, part of a broader problem with BLM's range management programs: too little data, too little budget and staff, and too much institutional sympathy for the demands of the livestock industry. The wild horse "problem" cannot be viewed in isolation, although there has been a very strong tendency to do so. Furthermore, solving the wild horse "problem" will not solve the problem of poor public lands management—it will merely get rid of additional thousands of wild horses needlessly.

BLM can do what the Wild Horse Act requires, and despite its problems remains the best—if not the only—federal agency capable of administering the Act. What is needed is clear direction from Congress, adequate resources to perform the range studies necessary, and, ultimately, a sense that BLM will be held accountable for running the program badly.

Lake Mead A Key to Conservation in the Southwest



Lake Mead National Recreation Area encompasses 130 miles of Colorado River in northwestern Arizona and southern Nevada. With 1,468,952 acres, it is the third largest area administered by the National Park Service outside of Alaska. Its close proximity to several urban areas and the continued urban development in the region, make this National Park Service unit an important component in conservation strategies for the desert southwest.

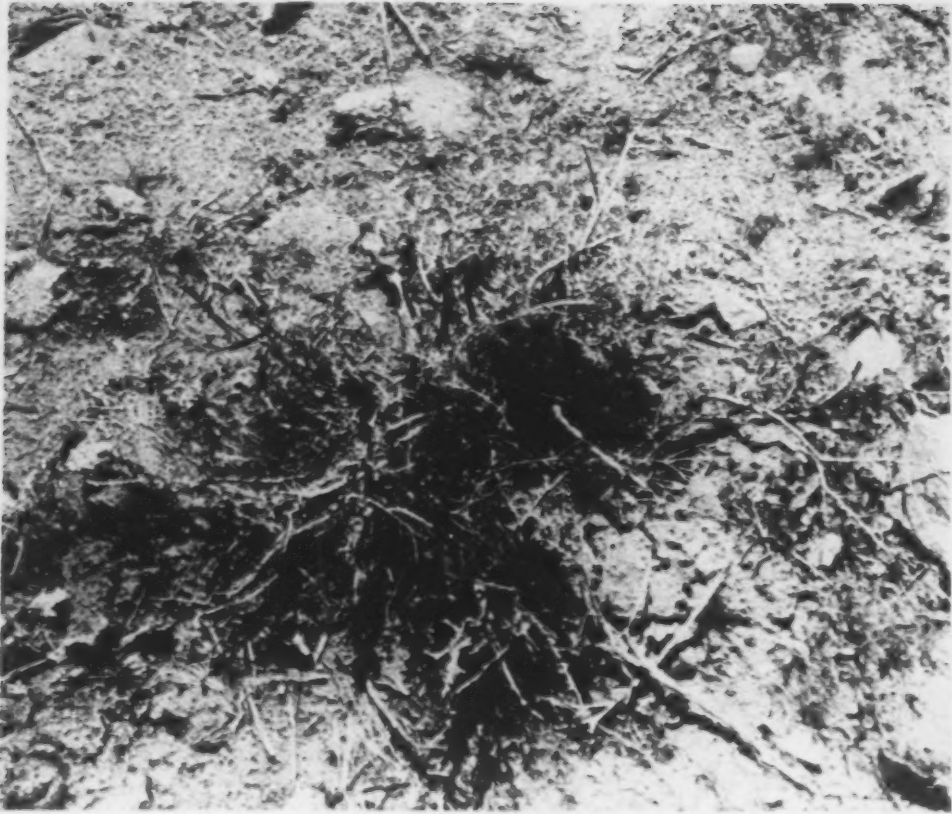
Congress has given the National Park Service specific mandates for the preservation of natural resources. Reflecting these, the published Management Policies of the National Park Service clearly state that the "primary objective in natural zones will be the protection of natural resources...ensuring their availability for future generations." The high levels of burro use and impacts within the Lake Mead National Recreation Area threatens the achievement of this objective.



It is estimated that 1600 feral burros live in Lake Mead National Recreation Area. Burros are an exotic species, introduced to the Lake Mead area in the late 1800's by prospectors. They easily adapted to the desert environment and population sizes grew. Unfortunately, burros threaten the park resources, including the fragile desert soils, unique environmental features, rare plants, ecosystem health, and native wildlife. Burros also threaten the success of riparian restoration programs in the recreation area.

At Risk:

Range conditions



Burros eat white-bursage (*Ambrosia dumosa*), the co-dominant plant in much of the recreation area. Impacts from burros have been so great in some areas, many of the plants are dead and the remaining individuals are heavily to severely utilized according to range management standards.

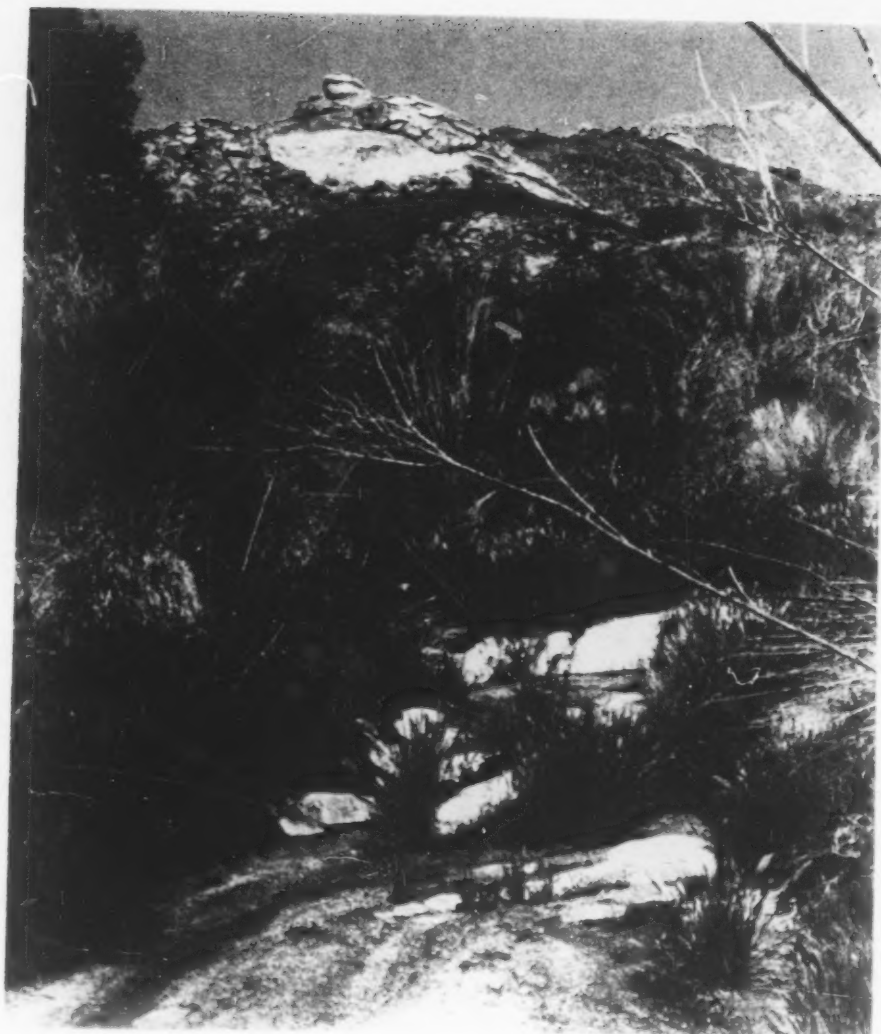
Vegetation



Preservation of unique environmental features is important in all National Parks. Lake Mead has identified a number of areas that warrant special protection, including the northern most existing stand of palo verde trees in North America. Burros have nearly destroyed this stand of trees in just three years. If nothing is done, the loss may be complete.



Springs



Wildlife relies heavily on natural springs for water in the desert. Burros also use the springs. Unfortunately, burros trample the vegetation, compact soils and muddy and pollute the water with feces and urine. This destroys the area's water source, possibly the only water source for miles around.



Desert Soils



These Granddunes National Preserve Area is fragile after
 a series of droughts during 1980-1981 and 1982-1983. The
 desert is now in a state of severe drought. The area is now
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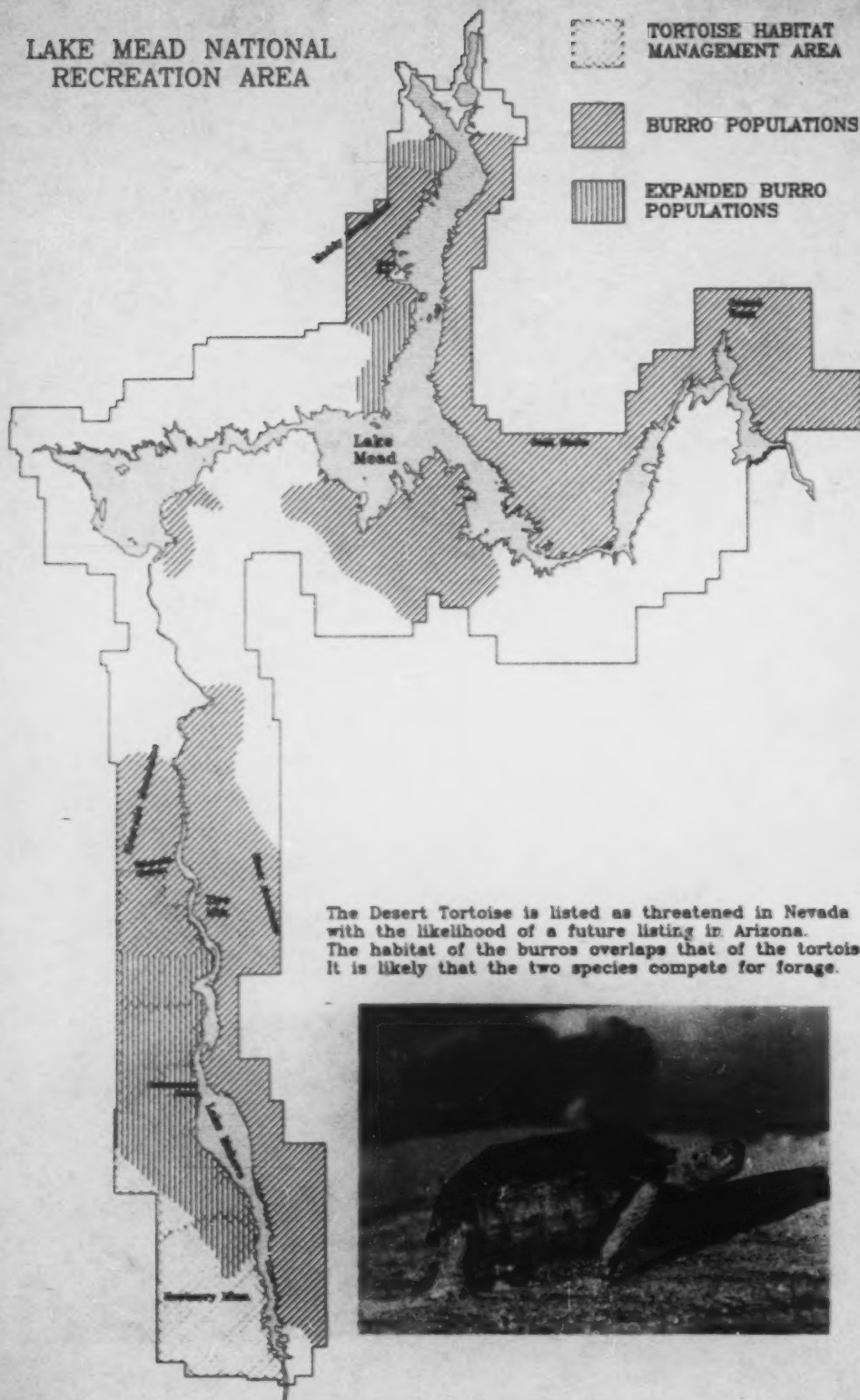


Riparian Restoration



Native riparian habitats are one of the most threatened habitat types in the southwest. Lake Mead National Recreation Area with over 130 miles of Colorado River and 550 miles of shoreline, has developed programs to restore the native vegetation to the riparian habitats. Continued high densities of burros jeopardize the success of these programs.

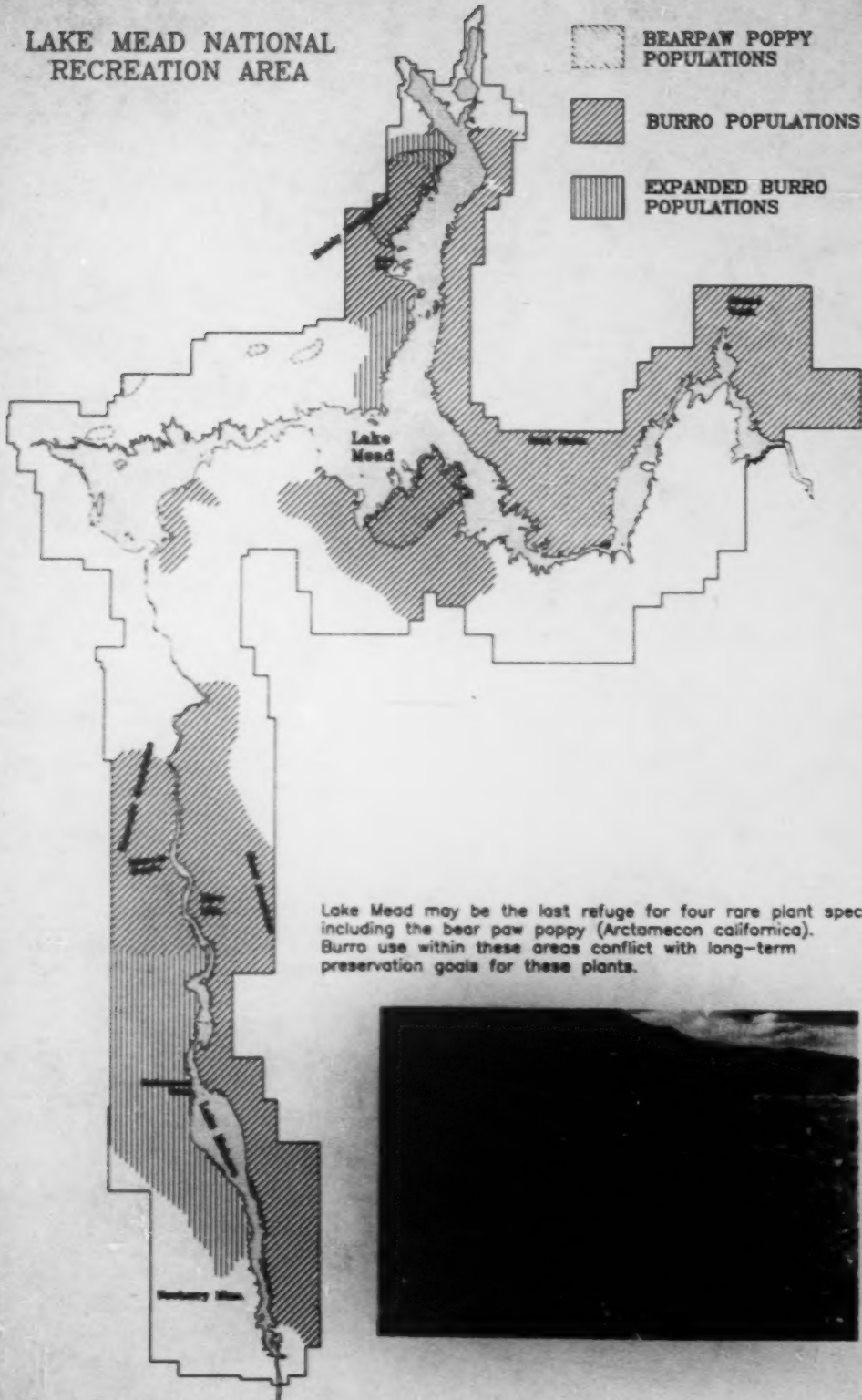
LAKE MEAD NATIONAL RECREATION AREA



The Desert Tortoise is listed as threatened in Nevada with the likelihood of a future listing in Arizona. The habitat of the burros overlaps that of the tortoise. It is likely that the two species compete for forage.



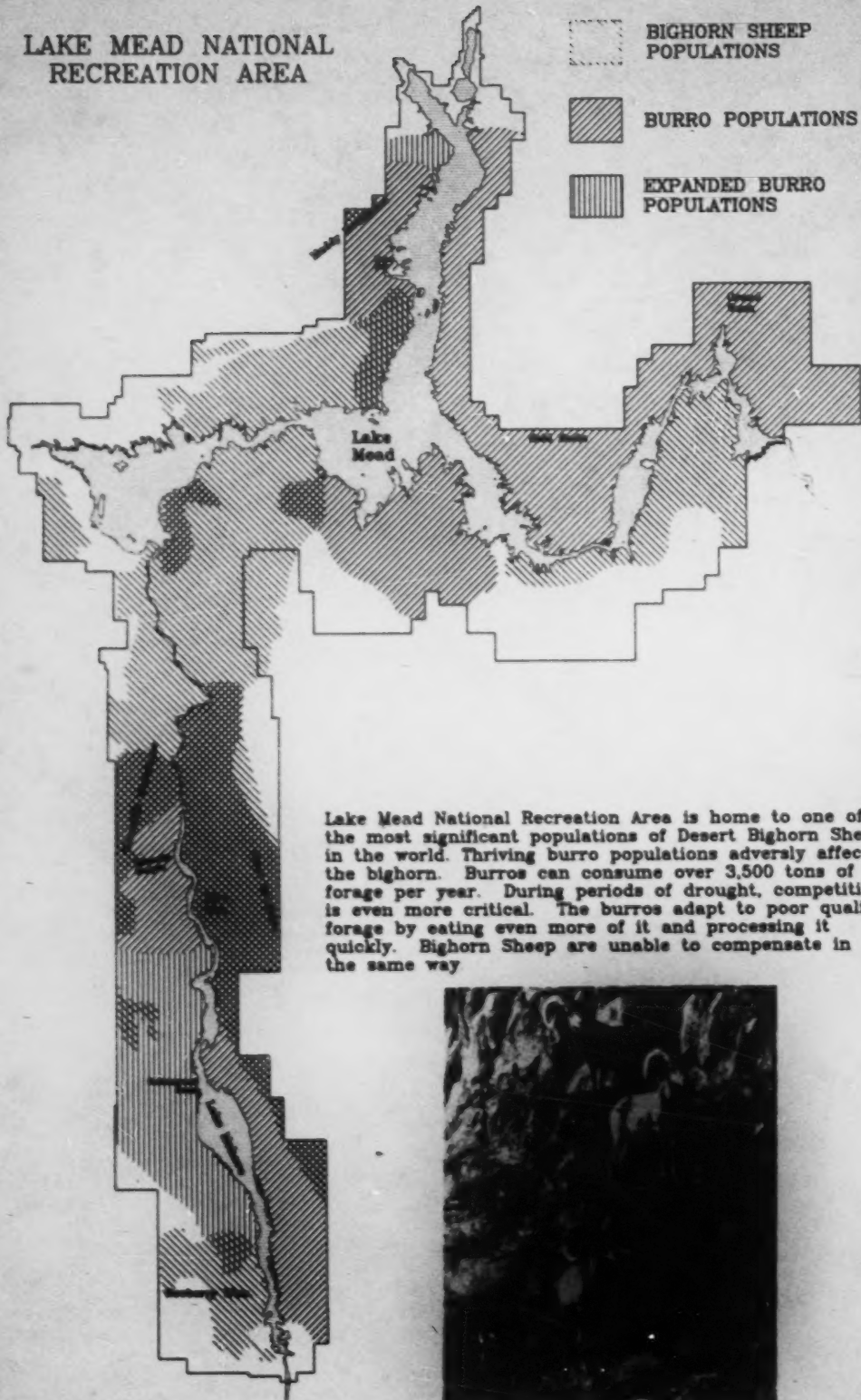
LAKE MEAD NATIONAL RECREATION AREA



Lake Mead may be the last refuge for four rare plant species, including the bear paw poppy (*Arctostaphylos californica*). Burro use within these areas conflict with long-term preservation goals for these plants.



LAKE MEAD NATIONAL RECREATION AREA



Lake Mead National Recreation Area is home to one of the most significant populations of Desert Bighorn Sheep in the world. Thriving burro populations adversely affect the bighorn. Burros can consume over 3,500 tons of forage per year. During periods of drought, competition is even more critical. The burros adapt to poor quality forage by eating even more of it and processing it quickly. Bighorn Sheep are unable to compensate in the same way.

